

GenCore version 5.1.6
Copyright (c) 1993 - 2003 Compugen Ltd.

OM protein - protein search, using sw model

Run on: November 7, 2003, 16:37:03 ; Search time 46 Seconds
(without alignments)

1642.475 Million cell updates/sec

Title: US-10-084-018-3

Perfect score: 2554

Sequence: 1 MVGAMKIVSLVLMGFC.....RAFDMINRFYKGMDFYVG 476

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 1107863 seqs, 158726573 residues

Total number of hits satisfying chosen parameters: 1107863

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Listing first 45 summaries

Database : A_Geneseq_13Jun03.*

1: /SIDS1/gcgdata/geneseq/geneseq-emb1/AA1980.DAT.*
2: /SIDS1/gcgdata/geneseq/geneseq-emb1/AA1981.DAT.*
3: /SIDS1/gcgdata/geneseq/geneseq-emb1/AA1982.DAT.*
4: /SIDS1/gcgdata/geneseq/geneseq-emb1/AA1983.DAT.*
5: /SIDS1/gcgdata/geneseq/geneseq-emb1/AA1984.DAT.*
6: /SIDS1/gcgdata/geneseq/geneseq-emb1/AA1985.DAT.*
7: /SIDS1/gcgdata/geneseq/geneseq-emb1/AA1986.DAT.*
8: /SIDS1/gcgdata/geneseq/geneseq-emb1/AA1987.DAT.*
9: /SIDS1/gcgdata/geneseq/geneseq-emb1/AA1988.DAT.*
10: /SIDS1/gcgdata/geneseq/geneseq-emb1/AA1989.DAT.*
11: /SIDS1/gcgdata/geneseq/geneseq-emb1/AA1990.DAT.*
12: /SIDS1/gcgdata/geneseq/geneseq-emb1/AA1991.DAT.*
13: /SIDS1/gcgdata/geneseq/geneseq-emb1/AA1992.DAT.*
14: /SIDS1/gcgdata/geneseq/geneseq-emb1/AA1993.DAT.*
15: /SIDS1/gcgdata/geneseq/geneseq-emb1/AA1994.DAT.*
16: /SIDS1/gcgdata/geneseq/geneseq-emb1/AA1995.DAT.*
17: /SIDS1/gcgdata/geneseq/geneseq-emb1/AA1996.DAT.*
18: /SIDS1/gcgdata/geneseq/geneseq-emb1/AA1997.DAT.*
19: /SIDS1/gcgdata/geneseq/geneseq-emb1/AA1998.DAT.*
20: /SIDS1/gcgdata/geneseq/geneseq-emb1/AA1999.DAT.*
21: /SIDS1/gcgdata/geneseq/geneseq-emb1/AA2000.DAT.*
22: /SIDS1/gcgdata/geneseq/geneseq-emb1/AA2001.DAT.*
23: /SIDS1/gcgdata/geneseq/geneseq-emb1/AA2002.DAT.*
24: /SIDS1/gcgdata/geneseq/geneseq-emb1/AA2003.DAT.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	2550	99.8	476	19 AAW72966	Human serine carbo
2	2539	99.4	476	20 AAY28570	Secreted peptide c
3	2539	99.4	476	22 AAU39043	Human secreted pro
4	2539	99.4	476	23 ABB55752	Human polypeptide
5	2538	99.4	476	20 AAY13372	Amino acid sequenc
6	2538	99.4	476	21 AAB01407	Human TANGO 176
7	2538	99.4	476	22 AAU29228	Human PRO polypept
8	2538	99.4	476	22 AAB80240	Human PRO223 prote
9	2538	99.4	476	24 ABU69650	Novel human secret

10	2538	99.4	476	24 ABU71316	Human PRO223 prote
11	2538	99.4	476	24 ABU71473	Human PRO polypept
12	2538	99.4	476	24 ABU71919	Human secreted/tra
13	2538	99.4	476	24 ABU65773	Human secreted/tra
14	2538	99.4	476	24 ABU66106	Novel human secret
15	2538	99.4	476	24 ABU67373	Human secreted pro
16	2538	99.4	476	24 ABU67610	Human secreted/tra
17	2538	99.4	476	24 ABU64527	Human secreted/tra
18	2538	99.4	476	24 ABU65468	Human PRO polypept
19	2538	99.4	476	24 ABU58604	Human PRO polypept
20	2538	99.4	476	24 ABU56140	Human secreted/tra
21	2538	99.4	476	24 ABU57135	Human PRO polypept
22	2538	99.4	476	24 ABU54375	Human secreted/tra
23	2538	99.4	476	24 ABU10714	Human secreted/tra
24	2538	99.4	477	22 AAM25810	Human protein sequ
25	2536	99.3	476	22 AAB88381	Human membrane or
26	2533	99.2	476	22 AAB88587	Human hydrophobic
27	2512.5	98.4	477	19 AAW72965	Human serine carbo
28	1772.5	69.4	351	19 AAW72967	Human serine carbo
29	1371	53.7	299	22 ABG22322	Novel human diagno
30	960.5	37.6	482	22 ABB60774	Drosophila melanog
31	557	21.8	480	22 AAB76860	Human lung tumour
32	557	21.8	480	23 AAU85515	Clone #18991 of lu
33	557	21.8	480	24 ABU69487	Human lung cancer
34	557	21.8	480	24 ABU66389	Lung cancer therap
35	555.5	21.8	452	18 AAW15091	Human precursor pr
36	553.5	21.7	492	21 AAB58436	Lung cancer associ
37	545.5	21.4	438	18 AAW15092	Human protective p
38	538.5	21.1	492	21 AAB01416	Mouse TANGO 176.
39	525.5	20.6	102	22 ABG22321	Novel human diagno
40	498.5	19.5	491	15 AAR48059	Sequence of protease
41	491.5	19.2	612	23 ABR38834	A. niger carboxype
42	484	19.0	482	21 AAG30065	Arabidopsis thalia
43	484	19.0	502	21 AAG30064	Arabidopsis thalia
44	482.5	18.9	536	23 ABR38819	A. niger carboxype
45	472.5	18.5	550	23 ABG33281	C. albicans BAX-as

ALIGNMENTS

RESULT 1
AAW72966
ID AAW72966 standard; Protein; 476 AA.
XX
AC AAW72966;
XX
DT 21-JAN-1999 (first entry)
XX
DE Human serine carboxypeptidase MMLR3DF01.
XX
KW Human; serine carboxypeptidase; CPEPT; diabetes mellitus; stroke;
KW Alzheimer's disease; multiple sclerosis; inflammatory glomerulonephritis;
KW atherosclerosis; ischaemic heart disease; Parkinson's disease;
KW Huntington's disease; amyotrophic lateral sclerosis.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT Misc-difference 118 /label= unknown
FT /note= "encoded by TTW"
FT Misc-difference 146 /label= unknown
FT /note= "encoded by STC"
FT
FT
XX WO9844128-A1.
XX
PD 08-OCT-1998.
XX
PF 30-MAR-1998; 98WO-US06250.
XX
PR 31-MAR-1997; 97US-0828488.

```

XX (INCY-) INCYTE PHARM INC.
XX Bandnan O, Goli SK, Hawkins PR, Hillman JL, Lal P;
XX WPI; 1998-557121/47.
XX N-PSDB; AAV64076.
XX Novel human serine carboxypeptidase - useful in the treatment of
XX e.g. diabetes mellitus, Alzheimer's disease, multiple sclerosis
XX Claim 1; Page 46-47; 68pp; English.
XX The present sequence represents a human serine carboxypeptidase (CPEPT).
XX The protein can be used in methods to treat disorders associated with
XX increased CPEPT expression e.g. diabetes mellitus, inflammatory
XX glomerulonephritis, atherosclerosis or ischaemic heart disease, or
XX disorders associated with decreased CPEPT expression such as stroke,
XX Alzheimer's, Parkinson's or Huntington's disease, multiple sclerosis or
XX amyotrophic lateral sclerosis. A hybridisation probe, complementary to
XX part of the nucleic acid sequence encoding CPEPT, can be used to detect
XX nucleic acids encoding CPEPT in a sample. Host cells and vectors,
XX containing nucleic acids encoding CPEPT, can be used to express CPEPT.
XX Sequence 476 AA;
XX
Query Match          99.8%; Score 2550; DB 19; Length 476;
Best Local Similarity 100.0%; Pred. No. 1.8e-241;
Matches 476; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 MVGAMWKVIVSLVLLMPCDGLFHSILYRSVSMPPKGDGQPLFLTPYEAGKIQKREL 60
DB 1 MVGAMWKVIVSLVLLMPCDGLFHSILYRSVSMPPKGDGQPLFLTPYEAGKIQKREL 60
QY 61 SLVGPPFGLNMKSYAGFLTVNKTYSNLFVWFFPFAQIQPEDAPVWLWLOGGPGSSMXGL 120
DB 61 SLVGPPFGLNMKSYAGFLTVNKTYSNLFVWFFPFAQIQPEDAPVWLWLOGGPGSSMXGL 120
QY 121 FVEHGPVVTSSNMTLRDRDPFWTTTSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
DB 121 FVEHGPVVTSSNMTLRDRDPFWTTTSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
QY 181 SALIQFOIFPEYKNDPFYVTGESYAGKYVPAIAHLIHSILNPVREVKINLNGAIGDGY 240
DB 181 SALIQFOIFPEYKNDPFYVTGESYAGKYVPAIAHLIHSILNPVREVKINLNGAIGDGY 240
QY 241 DPESIIGGYAEFLYQIGLLDEKQKYFQKQCEHIEHIRKQNWFEAFILDKLLDGLTS 300
DB 241 DPESIIGGYAEFLYQIGLLDEKQKYFQKQCEHIEHIRKQNWFEAFILDKLLDGLTS 300
QY 301 DPSYFQNVTCSSNYNPLRCTEPEBDQLYYKFLSLPEVROAIHVGNQTFNDGTIVVEKYL 360
DB 301 DPSYFQNVTCSSNYNPLRCTEPEBDQLYYKFLSLPEVROAIHVGNQTFNDGTIVVEKYL 360
QY 361 EDTVQSVKPLWLTIMNNYKVLIVNGOLDIIVAAALTEKSLMGMDWKGSOBYKAEKKVWK 420
DB 361 EDTVQSVKPLWLTIMNNYKVLIVNGOLDIIVAAALTEKSLMGMDWKGSOBYKAEKKVWK 420
QY 421 IFKSDSEVAGYIRQVGDHGVIIIRGGGHILPYDQPLRAFDMINRFYIGKWDPIYG 476
DB 421 IFKSDSEVAGYIRQVGDHGVIIIRGGGHILPYDQPLRAFDMINRFYIGKWDPIYG 476

RESULT 2
AAV28570
ID AAY28570 standard; Protein; 476 AA.
XX AC AAY28570;
XX DT 26-OCT-1999 (first entry)
XX DE' Secreted peptide clone bv280_3.
XX

```

Secreted; proliferation; differentiation; cytokine activity; vaccine; anti-inflammatory; tissue growth; tumour inhibition; gene therapy; haematopoiesis regulator; cell proliferation; immune stimulant.

Homo sapiens.

Key Location/Qualifiers
 Peptide 10..22
 Protein 23..476
 /label= signal_peptide
 /label= bv280_3
 Active-site 195..212
 /note= "Serine carboxypeptidase active site motif"

W0936512-A1.
 22-JUL-1999.
 11-JAN-1999; 99WO-US000550.
 08-JAN-1999; 99US-0227462.
 13-JAN-1999; 98US-0071304.
 (GEMY) GENETICS INST INC.

Agostino MJ, Clark HF, Collins-Racie LA, Evans C;
 Fechtel K, Jacobs K, Lavallie ER, McCoy JM, Merberg D;
 Spaulding V, Steininger RJ, Treacy M, Wong GG;
 WPI; 1999-493881/41.
 N-PSDB; AAZ10805.

New polynucleotides encoding human secreted proteins used for therapeutic, diagnostic and research purposes

Claim 16; Page 111-113; pp128; English.

This sequence is the human secreted protein bv280_3. This protein shows homology to a carboxypeptidase, and has a serine carboxypeptidase active site motif at residues 195-212. Polynucleotides AAZ10804-210813 and polypeptides AAY28568-28590 are predicted to have biological activities which would make them suitable for treating, preventing or ameliorating medical conditions in humans and animals, although no supporting data is given. Suggested activities include nutritional activity, cytokine and cell proliferation or differentiation activity, immune stimulating (e.g. as vaccines) or suppressing activity, haematopoiesis regulating activity, tissue growth activity, anti-inflammatory activity, cadherin/tumour invasion suppressor activity, and tumour inhibition activity. The polynucleotides may also be useful for gene therapy.

Sequence 476 AA;

Query Match 99.4%; Score 2539; DB 20; Length 476;
 Best Local Similarity 99.2%; Pred. No. 2.2e-240;
 Matches 472; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

QY 1 MVGAMWKVIVSLVLLMPCDGLFHSILYRSVSMPPKGDGQPLFLTPYEAGKIQKREL 60
 DB 1 MVGAMWKVIVSLVLLMPCDGLFHSILYRSVSMPPKGDGQPLFLTPYEAGKIQKREL 60
 QY 61 SLVGPPFGLNMKSYAGFLTVNKTYSNLFVWFFPFAQIQPEDAPVWLWLOGGPGSSMXGL 120
 DB 61 SLVGPPFGLNMKSYAGFLTVNKTYSNLFVWFFPFAQIQPEDAPVWLWLOGGPGSSMXGL 120
 QY 121 FVEHGPVVTSSNMTLRDRDPFWTTTSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
 DB 121 FVEHGPVVTSSNMTLRDRDPFWTTTSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
 QY 181 SALIQFOIFPEYKNDPFYVTGESYAGKYVPAIAHLIHSILNPVREVKINLNGAIGDGY 240
 DB 181 SALIQFOIFPEYKNDPFYVTGESYAGKYVPAIAHLIHSILNPVREVKINLNGAIGDGY 240
 QY 241 DPESIIGGYAEFLYQIGLLDEKQKYFQKQCEHIEHIRKQNWFEAFILDKLLDGLTS 300

Db 241 DPESIIGGYAEFLYLGLLDEKQKYPQKQCHIEHIRKQNWFEAFELDKLLDGLTS 300
 QY 301 DPSEYFQNVTCGSNNYFNFLRCTEPEDQLYYVKFSLPEVRQAIHVGNTQNDGTIVVEKYL 360
 Db 301 DPSEYFQNVTCGSNNYFNFLRCTEPEDQLYYVKFSLPEVRQAIHVGNTQNDGTIVVEKYL 360
 QY 361 EDTVQSVKPLWTEIMNNYKVLINQGLDIIIVAAALTEKSLMGMDKSGOEYKKAKKVWK 420
 Db 361 EDTVQSVKPLWTEIMNNYKVLINQGLDIIIVAAALTEKSLMGMDKSGOEYKKAKKVWK 420
 QY 421 IPKSDSEVAGYIRQAGDFHQVIRGGHILPYDQPLRAFDMINRFYKGGWDPYVG 476
 Db 421 IPKSDSEVAGYIRQAGDFHQVIRGGHILPYDQPLRAFDMINRFYKGGWDPYVG 476

RESULT 3
 AAU39043
 ID AAU39043 standard; Protein; 476 AA.

XX AC AAU39043;
 XX DT 16-JAN-2002 (first entry)
 XX DE Human secreted protein bv280_3.
 XX KW Human; secreted protein; antiinflammatory; immunosuppressive;
 KW nootropic; neuroprotective; antiarthritic; antimicrobial; vulnary;
 KW cytostatic; antidiabetic; virucide; antifertility; anticonvulsant;
 KW vasotropic; antiparkinsonian; immunostimulant; dermatological;
 KW antineumatic; antitumor; antitumor; osteopathic; tranquiliser;
 KW cerebroprotective; cytokine; cell proliferation; cell differentiation;
 KW immune deficiency; severe combined immunodeficiency; SCID; tumour;
 KW autoimmune disorder; multiple sclerosis; rheumatoid arthritis;
 KW graft-versus-host disease; myeloid deficiency; wound healing; ulcer;
 KW periodontal disease; osteoporosis; osteoarthritis; Alzheimer's disease;
 KW Parkinson's disease; Huntington's disease; infection; cardiac disease;
 KW stroke; sepsis; inflammatory bowel disease; contraceptive; immunogen;
 KW food supplement; vaccine.
 XX OS Homo sapiens.
 XX PN W0200175068-A2.
 XX 11-OCT-2001.
 XX 22-MAR-2001; 2001WO-US09369.
 XX 30-MAR-2000; 2000US-0539330.
 XX 04-DEC-2000; 2000US-0729674.
 XX (GEMY) GENETICS INST INC.
 XX Jacobs K, McCoy JM, Lavallie E, Collins-racie LA, Evans C;
 PI Treacy M, Agostino MJ, Steininger RJ, Spaulding V, Wong GG;
 PI Clark H, Fechtel K, Merberg D;
 XX WPI; 2001-639363/73.
 XX N-PSDB; AAS59261.
 XX Secreted human proteins, useful as vaccine for treating various
 PT diseases such as autoimmune disorders (e.g. multiple sclerosis), and
 PT nervous system disorders (e.g. stroke) -
 XX Disclosure; Page 529-530; 619pp; English.
 XX The invention relates to novel human secreted proteins, the nucleic
 CC acids encoding them. The protein may exhibit cytokine, cell proliferation
 CC or cell differentiation activity or may induce production of other
 CC cytokines in certain cell populations and may exhibit immune stimulating
 CC or immune suppressing activity, which is useful for the treatment of
 CC various immune deficiencies and disorders e.g. severe combined
 CC immunodeficiency (SCID), autoimmune disorders e.g. multiple sclerosis,

CC systemic lupus erythematosus, rheumatoid arthritis, autoimmune pulmonary
 CC inflammation. The proteins are also useful in the treatment of diseases
 CC and disorders including tissue, skin and organ transplantation and in
 CC graft-versus-host diseases (GVHD), in the induction of tumour immunity,
 CC myeloid or lymphoid cell deficiencies, wound healing and tissue repair,
 CC in the treatment of burns, incisions and ulcers; as well as in treatment
 CC of periodontal disease, osteoporosis or osteoarthritis, mediated by
 CC inflammatory processes, diseases of the peripheral nervous system,
 CC Alzheimer's, Parkinson's disease, Huntington's disease,
 CC amyotrophic lateral sclerosis, and Shy-Drager syndrome, infections,
 CC infarction of cardiac and central nervous system vessel e.g. stroke,
 CC sepsis, inflammatory bowel disease, ulcers, bone regeneration. The
 CC protein, having activin- or inhibin-related activities is useful as a
 CC contraceptive based on the ability of inhibins to decrease fertility in
 CC female mammals and decrease spermatogenesis in male mammals. The
 CC proteins and nucleic acids are also useful as food supplements. The
 CC present sequence represents a secreted protein of the invention.

XX Sequence 476 AA;

Query Match 99.4%; Score 2539; DB 22; Length 476;
 Best Local Similarity 99.2%; Pred. No. 2.2e-240;
 Matches 472; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

QY 1 MVGAMKIVISLVLLMPCDGLFHSLYRSVSMPPKSGDQPLFTPTIEAGKIQKREL 60
 Db 1 MVGAMKIVISLVLLMPCDGLFHSLYRSVSMPPKSGDQPLFTPTIEAGKIQKREL 60
 QY 61 SLVGPPPLNKKSYAGFLTVNKTNSNLFVFPFPAQIQPEDAPVVLQGGPGGSMKGL 120
 Db 61 SLVGPPPLNKKSYAGFLTVNKTNSNLFVFPFPAQIQPEDAPVVLQGGPGGSMKGL 120
 QY 121 FVEHGPVYVTSNMLDRDRFPMWTTTXXSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
 Db 121 FVEHGPVYVTSNMLDRDRFPMWTTTXXSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
 QY 181 SALIOFFQIFPYKNDPVVTGESYAGKVPVPAIAHLIHSNLPVREVKNINGIAGDGY 240
 Db 181 SALIOFFQIFPYKNDPVVTGESYAGKVPVPAIAHLIHSNLPVREVKNINGIAGDGY 240
 QY 241 DPESIIGGYAEFLYLGLLDEKQKYPQKQCHIEHIRKQNWFEAFELDKLLDGLTS 300
 Db 241 DPESIIGGYAEFLYLGLLDEKQKYPQKQCHIEHIRKQNWFEAFELDKLLDGLTS 300
 QY 301 DPSEYFQNVTCGSNNYFNFLRCTEPEDQLYYVKFSLPEVRQAIHVGNTQNDGTIVVEKYL 360
 Db 301 DPSEYFQNVTCGSNNYFNFLRCTEPEDQLYYVKFSLPEVRQAIHVGNTQNDGTIVVEKYL 360
 QY 361 EDTVQSVKPLWTEIMNNYKVLINQGLDIIIVAAALTEKSLMGMDKSGOEYKKAKKVWK 420
 Db 361 EDTVQSVKPLWTEIMNNYKVLINQGLDIIIVAAALTEKSLMGMDKSGOEYKKAKKVWK 420
 QY 421 IPKSDSEVAGYIRQAGDFHQVIRGGHILPYDQPLRAFDMINRFYKGGWDPYVG 476
 Db 421 IPKSDSEVAGYIRQAGDFHQVIRGGHILPYDQPLRAFDMINRFYKGGWDPYVG 476

RESULT 4
 ABB55752
 ID ABB55752 standard; Protein; 476 AA.
 XX AC ABB55752;
 XX DT 14-FEB-2002 (first entry)
 XX DE Human polypeptide SEQ ID NO 110.

XX Human; clone bd306-7; clone yb8-1; ATCC number 98599; gene therapy;
 KW immune disorder; bacterial infection; fungal infection; cancer; tumour;
 KW autoimmune disorder; systemic lupus erythematosus; wound; ulcer; inhibin;
 KW osteoporosis; osteoarthritis; nervous system disorder; neuropathy;
 KW Alzheimer's disease; Parkinson's disease; Huntington's disease; activin;
 KW haemophilia; cardiac infarction; stroke; sepsis; arthritis; vulnary;

KW ischaemia-reperfusion injury; inflammatory bowel disease; chemotactic;
 KW Crohn's disease; cytostatic; anti-inflammatory; immunomodulator;
 KW neuroprotective; haemostatic; thrombolytic; anti-inflammatory.

OS Homo sapiens.

XX US2001039335-A1.

XX 08-NOV-2001.

XX 04-DEC-2000; 2000US-0729674.

XX 10-APR-1997; 97US-126425P.

XX 04-DEC-1997; 97US-067454P.

XX 20-DEC-1997; 97US-068379P.

XX 02-JAN-1998; 98US-070346P.

XX 07-JAN-1998; 98US-070643P.

XX 08-JAN-1998; 98US-070755P.

XX 13-JAN-1998; 98US-071304P.

XX 22-JAN-1998; 98US-072134P.

XX 30-JAN-1998; 98US-073095P.

XX 18-FEB-1998; 98US-075038P.

XX 30-MAR-2000; 2000US-0539330.

XX 23-NOV-1998; 98US-0197886.

XX (JACO/) JACOBS K.

XX (MCCO/) MCCOY J M.

XX (LAVA/) LAVALLIE E R.

XX (COLL/) COLLINS-RACIE L A.

XX (EVAN/) EVANS C.

XX (MERB/) MERBERG D.

XX (TREA/) TREACY M.

XX (AGOS/) AGOSTINO M J.

XX (STEI/) STEININGER R J.

XX (SPAU/) SPAULDING V.

XX (WONG/) WONG G G.

XX (CLAR/) CLARK H.

XX (FECH/) FECHTEL K.

XX Jacobs K, McCoy JM, Lavallie ER, Collins-Racie LA, Evans C;

XX Merberg D, Treacy M, Agostino MJ, Steininger RJ, Spaulding V;

XX Wong GG, Clark H, Fechtel K;

XX WPI: 2002-040725/05.

XX N-PSDB; ABA90930.

XX New secreted proteins and encoding polynucleotides, useful in gene

XX therapies, particularly for preventing or treating autoimmune

XX disorders, cancer, graft-versus-host disease, wound, osteoporosis,

XX stroke or inflammations

XX Disclosure; Page 255-256; 349pp; English.

XX The invention relates to isolated polynucleotides (ABA90876-ABA90968 and

XX ABA90980) and encoded proteins (ABBS5698-ABBS5800), especially

XX polynucleotides SEQ ID NO 1 (ABA90876) and SEQ ID NO 19 (ABA90885) and

XX proteins SEQ ID NO 2 (ABBS5698) and SEQ ID NO 20 (ABBS5707) contained in

CC haemophilia, cardiac infarction or stroke; inflammations, shock, sepsis
 CC or systemic inflammatory response syndrome, ischaemia-reperfusion
 CC injury, endotoxin lethality, arthritis, inflammatory bowel disease or
 CC Crohn's disease; or tumours or cancers, pemphigus vulgaris or pemphigus
 CC foliaceus.

XX Sequence 476 AA;

Query Match 99.4%; Score 2539; DB 23; Length 476;

Best Local Similarity 99.2%; Pred. No. 2.2e-240;

Matches 472; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

QY 1 MYGAMMKVIVSLVLLMPGCDGLFHSLYRSVSMPPKSGDQPLFTPTPIEAGKIQKREL 60

DB 1 MYGAMMKVIVSLVLLMPGCDGLFHSLYRSVSMPPKSGDQPLFTPTPIEAGKIQKREL 60

QY 61 SLVGGPPGLNPKSYAGFLTVNKTNSNLFVWFPAQIQPEDAPVVLWLQGGSGSSMFL 120

DB 61 SLVGGPPGLNPKSYAGFLTVNKTNSNLFVWFPAQIQPEDAPVVLWLQGGSGSSMFL 120

QY 121 FVEHGPVVTNSMTLDRDRFPWTTTSMLYIDNPVGTGFSPTDDTHGYAVNEDDVARDLY 180

DB 121 FVEHGPVVTNSMTLDRDRFPWTTTSMLYIDNPVGTGFSPTDDTHGYAVNEDDVARDLY 180

QY 181 SALIOFFQIFPEYKKNDFVVTGESYAGKYVPAIAHLIHSNLPVREVKNLNGIAIGDYS 240

DB 181 SALIOFFQIFPEYKKNDFVVTGESYAGKYVPAIAHLIHSNLPVREVKNLNGIAIGDYS 240

QY 241 DPESIIIGGYAEFLYQIGLLDEKQKQYFQKQCEHIEHIRKQNWFAFEILDKLLDGLTFS 300

DB 241 DPESIIIGGYAEFLYQIGLLDEKQKQYFQKQCEHIEHIRKQNWFAFEILDKLLDGLTFS 300

QY 301 DPSYFQNVGTGCSNYNINFLACTEPEDQLYYVFKLSLPEVROAITHVGNQTFNDGTIVEKYLR 360

DB 301 DPSYFQNVGTGCSNYNINFLACTEPEDQLYYVFKLSLPEVROAITHVGNQTFNDGTIVEKYLR 360

QY 361 EDTVQSVKFWLTEIMNNYKVLINGOLDIIIVAAALTEISLMGMDWKSGOEYKKAQKWK 420

DB 361 EDTVQSVKFWLTEIMNNYKVLINGOLDIIIVAAALTEISLMGMDWKSGOEYKKAQKWK 420

QY 421 IPKSDSEVAGYIRQVDFHQVIRGGHILPYDQPLRAPDMINRFYKGMWDPYVG 476

DB 421 IPKSDSEVAGYIRQVDFHQVIRGGHILPYDQPLRAPDMINRFYKGMWDPYVG 476

RESULT 5

AAV13372

ID AAY13372 standard; Protein; 476 AA.

XX AC AAY13372;

XX DT 25-JUN-1999 (first entry)

XX DE Amino acid sequence of protein PRO223.

XX Secreted protein; transmembrane protein; human; enterocolitis;

XX Zollinger-Ellison syndrome; gastrointestinal ulceration;

XX congenital microvillus atrophy; skin disease; cell growth;

XX abnormal keratinocyte differentiation; psoriasis; epithelial cancer;

XX Parkinson's disease; Alzheimer's disease; ALS; neuropathy;

XX fibromodulin; dermal scarring; Usher Syndrome; Atrophia areata;

XX anti-thrombotic; wound healing; tissue repair.

XX OS Homo sapiens.

XX PN WO9914328-A2.

XX PD 25-MAR-1999.

XX PF 16-SEP-1998; 98WO-US19330.

XX PR 25-NOV-1997; 97US-0066840.

XX PR 17-SEP-1997; 97US-0059113.


```

XX PR 30-DEC-1998; 98US-0223094.
XX PA (MILL-) MILLENNIUM PHARM INC.
XX PI Sharp JD;
XX DR WPI: 2000-465732/40.
XX DR N-PSDB; AAA47444.
XX PT Novel nucleic acid molecule encoding secreted or membrane-associated
XX PT proteins useful for identifying modulators and for treating disorders
XX PT associated with spleen, bone, kidney, liver, pituitary and thyroid
XX PT gland
XX PS Claim 8; Fig 5a-b; 129pp; English.
XX CC Human TANGO 221 and 222 nucleic acids, proteins and their modulators
XX CC are useful for modulating adipocyte function and adipocyte disorders
XX CC such as obesity and for treating disorders associated with abnormal fat
XX CC metabolism e.g. cachexia and proliferation disorders such as cancer.
XX CC Further TANGO 222 nucleic acids and proteins are useful for treating
XX CC disorders associated with spleen and hepatic disorders such as
XX CC jaundice, hepatitis, cirrhosis or malignant tumors. TANGO 176 nucleic
XX CC acids, polypeptides and their modulators are useful for treating
XX CC lysosomal protective protein cathepsin A-associated disorders such as
XX CC galactosialidosis and disorders associated with a defect in neutrophil
XX CC or monocyte chemotaxis. They are also useful for treating renal
XX CC disorders, intestinal disorders, pituitary related disorders, adrenal
XX CC cortex disorders such as hypoadrenalism, hyperadrenalism or neoplasia
XX CC and disorders of the thyroid gland. TANGO 232 nucleic acids, proteins
XX CC and their modulators are useful for treating cartilage and bone
XX CC associated disease and disorders such as bone cancer and
XX CC osteoarthritis.
XX SQ Sequence 476 AA;
Query Match 99.4%; Score 2538; DB 21; Length 476;
Best Local Similarity 99.2%; Pred. No. 2.8e-240; Indels 0; Gaps 0;
Matches 472; Conservative 0; Mismatches 4;
Qy 1 MVGAMKVIIVSLVLMFGPCDGLFSLYRSVSMPPKGDGQPLFLTPYIAGKIQKREL 60
Db 1 MVGAMKVIIVSLVLMFGPCDGLFSLYRSVSMPPKGDGQPLFLTPYIAGKIQKREL 60
Qy 61 SLVGPPFGLNKSAGFLTVNKTNSNLFVFFPAQIQPEDAPVVLWLGSGPGSSMXGL 120
Db 61 SLVGPPFGLNKSAGFLTVNKTNSNLFVFFPAQIQPEDAPVVLWLGSGPGSSMXGL 120
Qy 121 FVEHGPVVTNSMTLRDRDPWTXXSMLYIDNPVGTGFTDTHGYAVNEDDVARDLY 180
Db 121 FVEHGPVVTNSMTLRDRDPWTXXSMLYIDNPVGTGFTDTHGYAVNEDDVARDLY 180
Qy 181 SALTQFFQIFPEYKNNPFYVTGESYAGKYVPAIAHLIHSNLPVREVKNLNGIAIGDYS 240
Db 181 SALTQFFQIFPEYKNNPFYVTGESYAGKYVPAIAHLIHSNLPVREVKNLNGIAIGDYS 240
Qy 241 DPESIIIGYABFLYQIGLLDEKQKFKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQK 300
Db 241 DPESIIIGYABFLYQIGLLDEKQKFKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQK 300
Qy 301 DPSYFQNTGCSNYNFRCTEPEDELQYVVKFLSLPEVRQAIHVGNQTFNDGTIVEKYL 360
Db 301 DPSYFQNTGCSNYNFRCTEPEDELQYVVKFLSLPEVRQAIHVGNQTFNDGTIVEKYL 360
Qy 361 EDTVQSVKPMILTEIMNNYKVLINQGLDIIIVAAALTERSLMGMDWKGSQYKKAQKVK 420
Db 361 EDTVQSVKPMILTEIMNNYKVLINQGLDIIIVAAALTERSLMGMDWKGSQYKKAQKVK 420
Qy 421 IFKSDSEVAGYIROAGDFHQVIRGGGHILPYDQPLRAFDMINRFYKGGWDPVVG 476
Db 421 IFKSDSEVAGYIROAGDFHQVIRGGGHILPYDQPLRAFDMINRFYKGGWDPVVG 476

```

```

RESULT 7
AAU29228
ID AAU29228 standard; Protein; 476 AA.
XX AC
XX AC AAU29228;
XX DT 18-DEC-2001 (first entry)
XX DE Human PRO polypeptide sequence #205.
XX KW PRO polypeptide; mammal; tumour; cancer; human; cattle; horse; sheep;
XX KW dog; cat; pig; goat; rabbit; tumour necrosis factor alpha; TNF-alpha;
XX KW blood; chondrocyte cell; cell proliferation; cell differentiation; colon;
XX KW adrenal; lung; breast; prostate; rectum; cervix; liver; genetic disorder.
XX OS Homo sapiens.
XX PN WO200168848-A2.
XX PD 20-SEP-2001.
XX PF 28-FEB-2001; 2001WO-US06520.
XX PR 01-MAR-2000; 2000WO-US05601.
XX PR 02-MAR-2000; 2000WO-US05841.
XX PR 03-MAR-2000; 2000US-187202P.
XX PR 06-MAR-2000; 2000US-186968P.
XX PR 14-MAR-2000; 2000US-189320P.
XX PR 14-MAR-2000; 2000US-189328P.
XX PR 15-MAR-2000; 2000WO-US06884.
XX PR 21-MAR-2000; 2000US-190828P.
XX PR 21-MAR-2000; 2000US-191007P.
XX PR 21-MAR-2000; 2000US-191048P.
XX PR 21-MAR-2000; 2000US-191114P.
XX PR 28-MAR-2000; 2000US-192655P.
XX PR 29-MAR-2000; 2000US-193032P.
XX PR 29-MAR-2000; 2000US-193053P.
XX PR 30-MAR-2000; 2000WO-US08439.
XX PR 04-APR-2000; 2000US-194449P.
XX PR 04-APR-2000; 2000US-194647P.
XX PR 11-APR-2000; 2000US-195975P.
XX PR 11-APR-2000; 2000US-196000P.
XX PR 11-APR-2000; 2000US-196187P.
XX PR 11-APR-2000; 2000US-196890P.
XX PR 11-APR-2000; 2000US-196820P.
XX PR 18-APR-2000; 2000US-198121P.
XX PR 18-APR-2000; 2000US-198585P.
XX PR 25-APR-2000; 2000US-199397P.
XX PR 25-APR-2000; 2000US-199550P.
XX PR 25-APR-2000; 2000US-199554P.
XX PR 03-MAY-2000; 2000US-201516P.
XX PR 17-MAY-2000; 2000WO-US13705.
XX PR 22-MAY-2000; 2000WO-US14042.
XX PR 30-MAY-2000; 2000WO-US14941.
XX PR 02-JUN-2000; 2000WO-US15264.
XX PR 05-JUN-2000; 2000US-209832P.
XX PR 28-JUL-2000; 2000WO-US20710.
XX PR 22-AUG-2000; 2000US-0644848.
XX PR 24-AUG-2000; 2000WO-US23328.
XX PR 08-NOV-2000; 2000WO-US30952.
XX PR 01-DEC-2000; 2000WO-US32678.
XX PR 20-DEC-2000; 2000WO-US34956.
XX PA (GETH ) GENENTECH INC.
XX PI Baker KP, Chen J, Desnoyers L, Goddard A, Godowski PJ, Gurney AL;
XX PI Pan J, Smith V, Watanabe CK, Wood WI, Zhang Z;
XX WPI; 2001-602746/68.
XX DR N-PSDB; AAS46129.
XX PT Novel nucleic acids encoding PRO polypeptides, used to diagnose the

```

PT presence of tumours, such as prostate and breast tumours, in mammals and
PT to screen for modulators of the compounds -
XX
PS Claim 11; Fig 410; 774pp; English.

XX Sequences AAU29024-AAU29328 represent PRO polypeptides of the invention.
CC The PRO polypeptides and their associated nucleic acids can be used to
CC detect the presence of a tumour in a mammal by comparing the level of
CC expression of a PRO polypeptide in a test sample of cells from the animal
CC and a control sample of normal cells, whereby a higher level of
CC expression in the test sample indicates the presence of a tumour in the
CC mammal. Mammals include dogs, cats, cattle, horses, sheep, pigs, goats
CC and rabbits but are preferably human. The polypeptides can be used to
CC stimulate tumour necrosis factor (TNF) alpha release from human blood,
CC when contacted with it. A specific polypeptide can be used to stimulate
CC the proliferation or differentiation of chondrocyte cells. The PRO
CC proteins can be used to determine the presence of tumours and also
CC susceptibility to tumour development, particularly adrenal, lung, colon,
CC breast, prostate, rectal, cervical, or liver tumours, in mammalian
CC subjects. The oligonucleotide probes specific for the PRO nucleic acids
CC can be used for genetic analysis of individuals with genetic disorders.

XX Sequence 476 AA;

Query Match 99.4%; Score 2538; DB 22; Length 476;
Best Local Similarity 99.2%; Pred. No. 2.8e-240;
Matches 472; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

QY 1 MVGAMWKVIVSLVLLMPGCDGLFHSLYRSVSMPPKGDGSGQLFLTPYEAGKIQKREL 60
DB 1 MVGAMWKVIVSLVLLMPGCDGLFHSLYRSVSMPPKGDGSGQLFLTPYEAGKIQKREL 60
QY 61 SLVGPPFGLNKMKSAGFLTVNKTNSNLFVFPFPAQIQPEDAPVVLWLOGGPGGSMXGL 120
DB 61 SLVGPPFGLNKMKSAGFLTVNKTNSNLFVFPFPAQIQPEDAPVVLWLOGGPGGSMXGL 120
QY 121 FVEHGPFVVTNNMLDRDFFPWTITXSMLYIDNPVGTGFTDDTHGYAVNEDDVARDLY 180
DB 121 FVEHGPFVVTNNMLDRDFFPWTITXSMLYIDNPVGTGFTDDTHGYAVNEDDVARDLY 180
QY 181 SALIQFQIPEYKNDFFVTGSEYAGKVPVPAIAHLIHSINPVREVKNLNGIAIGDGY 240
DB 181 SALIQFQIPEYKNDFFVTGSEYAGKVPVPAIAHLIHSINPVREVKNLNGIAIGDGY 240
QY 241 DPESITGGVAFELYQIGLDEKOKYFQKOCHECIEHIRKQNFVFAFEILDKLLDGLTS 300
DB 241 DPESITGGVAFELYQIGLDEKOKYFQKOCHECIEHIRKQNFVFAFEILDKLLDGLTS 300
QY 301 DPSYFQNVTCGSNNYFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLR 360
DB 301 DPSYFQNVTCGSNNYFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLR 360
QY 361 EDTVQSVKVPWLTIIMNNYKVLINQGLDIIIVAAALTEISLMGMWKGSGOEYKAEKKVWK 420
DB 361 EDTVQSVKVPWLTIIMNNYKVLINQGLDIIIVAAALTEISLMGMWKGSGOEYKAEKKVWK 420
QY 421 IPKSDSEVAGYIRQVGDHGVIRGGGHILPYDQPLRAFPMINRFYVKGWDPYVG 476
DB 421 IPKSDSEVAGYIRQVGDHGVIRGGGHILPYDQPLRAFPMINRFYVKGWDPYVG 476

RESULT 8

AAB80240
ID AAB80240 standard; Protein; 476 AA.

XX AAB80240;

XX 24-APR-2001 (first entry)

XX Human PRO223 protein.

XX Human; PRO; dermatological; antipsoriatic; cytostatic; antiinflammatory;
KW antiparkinsonian nootropic; neuroprotective; vulnerary; cardiant;

KW antiaangiogenic; vasotropic; antiasthmatic; antirheumatic; cancer;
KW antiarthritic; antiinfertility; antidiabetic; antiviral; diabetes;
KW ophthalmological; gene therapy; skin disease; gastrointestinal disorder;
KW ischaemia; inflammation.

OS Homo sapiens.

XX WO200104311-A1.

XX 18-JAN-2001.

XX 22-FEB-2000; 2000WO-US04414.

XX 07-JUL-1999; 99US-0143048.

XX 26-JUL-1999; 99US-0145698.

XX 28-JUL-1999; 99US-0146222.

XX 08-SEP-1999; 99WO-US20594.

XX 13-SEP-1999; 99WO-US20944.

XX 15-SEP-1999; 99WO-US21090.

XX 15-SEP-1999; 99WO-US21547.

XX 05-OCT-1999; 99WO-US23089.

XX 29-NOV-1999; 99WO-US28214.

XX 30-NOV-1999; 99WO-US28313.

XX 16-DEC-1999; 99WO-US30095.

XX 20-DEC-1999; 99WO-US30911.

XX 20-DEC-1999; 99WO-US30999.

XX 05-JAN-2000; 99WO-US00219.

XX (GETH) GENENTECH INC.

XX Ashkenazi AJ, Botstein D, Desnoyers L, Eaton DL, Ferrara N;

XX Filvaroff E, Fong S, Gao W, Gerber H, Gerritsen ME, Goddard A;

XX Godowski EJ, Grimaldi CJ, Gurney AL, Hillan KJ, Kljavin IJ;

XX Mather JP, Pan J, Paoni NF, Roy MA, Stewart TA, Tumas D;

XX Williams PM, Wood WI;

XX WPI; 2001-081051/09.

XX N-PSDB; AAF72401.

XX Sixty one nucleic acids encoding PRO polypeptides which are useful in
PT the treatment of skin diseases (e.g. psoriasis), cancers (e.g. lung
PT squamous cell carcinoma) and neurodegenerative diseases (e.g.
PT Alzheimer's disease) -

XX Claim 1; Fig 60; 393pp; English.

XX The present sequence is one of sixty one novel secreted and

CC transmembrane PRO polypeptides. The PRO polypeptides are

CC useful for treating skin diseases (e.g. psoriasis), cancers (e.g. lung

CC squamous cell carcinoma), gastrointestinal disorders (e.g.

CC enterocolitis), neurodegenerative diseases (e.g. Alzheimer's disease,

CC Parkinson's disease), wound repair, cardiovascular disorders (e.g.

CC endometrial bleeding angiogenesis, ischaemias such as coronary

CC ischaemia, atherosclerosis), inflammatory disorders (e.g. asthma,

CC rheumatoid arthritis, multiple sclerosis), infertility, AIDS and

CC diabetes and retinal disorders such as retinitis pigmentosum.

CC The PRO nucleic acids have applications in molecular biology, including
CC use as hybridization probes, and in chromosome and gene mapping.

XX Sequence 476 AA;

Query Match 99.4%; Score 2538; DB 22; Length 476;

Best Local Similarity 99.2%; Pred. No. 2.8e-240;

Matches 472; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

QY 1 MVGAMWKVIVSLVLLMPGCDGLFHSLYRSVSMPPKGDGSGQLFLTPYEAGKIQKREL 60

DB 1 MVGAMWKVIVSLVLLMPGCDGLFHSLYRSVSMPPKGDGSGQLFLTPYEAGKIQKREL 60

QY 61 SLVGPPFGLNKMKSAGFLTVNKTNSNLFVFPFPAQIQPEDAPVVLWLOGGPGGSMXGL 120

DB 61 SLVGPPFGLNKMKSAGFLTVNKTNSNLFVFPFPAQIQPEDAPVVLWLOGGPGGSMXGL 120

Qy 121 FVEHGPVVTSMNLTDRDPFWTTXSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
Db 121 FVEHGPVVTSMNLTDRDPFWTTLSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
Qy 181 SALIQFQIPEYKNDPVTGESYAGKYVPAIAHLIHSNPNREVKNLNGIAIGDYS 240
Db 181 SALIQFQIPEYKNDPVTGESYAGKYVPAIAHLIHSNPNREVKNLNGIAIGDYS 240
Qy 241 DPESIIIGYAEFLYQIGLLDEKQKXFKQCHCEIHRKONNFEAFIILDKLLDGLTS 300
Db 241 DPESIIIGYAEFLYQIGLLDEKQKXFKQCHCEIHRKONNFEAFIILDKLLDGLTS 300
Qy 301 DPSYFQNVTCGNTYFNLCRTEPEDQLYYKFLSLPEVRQAIHVGNQTFNDGTIVEKYL 360
Db 301 DPSYFQNVTCGNTYFNLCRTEPEDQLYYKFLSLPEVRQAIHVGNQTFNDGTIVEKYL 360
Qy 361 EDTVQSVKPLTEIMNNYKULIYNGQLDIIVAAALTERSLMGMDWKSQYKKAQKVK 420
Db 361 EDTVQSVKPLTEIMNNYKULIYNGQLDIIVAAALTERSLMGMDWKSQYKKAQKVK 420
Qy 421 IFKSDSEVAGYIROGDFHVIIRGGGHILPYDQPLRAFDMINRFYKGMWDPYVG 476
Db 421 IFKSDSEVAGYIROGDFHVIIRGGGHILPYDQPLRAFDMINRFYKGMWDPYVG 476

RESULT 9
ABU69650
ID ABU69650 standard; Protein; 476 AA.
XX AC ABU69650;
XX DT
XX DE
XX DE Novel human secreted and transmembrane protein PRO223.
XX KW Human; secreted and transmembrane protein; gene therapy; psoriasis;
KW enterocolitis; gastrointestinal ulceration; skin disease;
KW keratinocyte differentiation; epithelial cancer; Alzheimer's disease;
KW squamous cell carcinoma; Parkinson's disease; inflammatory disease;
KW amyotrophic lateral sclerosis; rheumatoid arthritis; asthma;
KW multiple sclerosis; organ failure; atherosclerosis; cardiac injury;
KW infertility; birth defect; premature aging; AIDS; cancer;
KW diabetic complication; wound repair; tissue re-growth.
XX OS Homo sapiens.
XX PN
XX PD US2003017463-A1.
XX PF 23-JAN-2003.
XX PF 11-JUL-2001; 2001US-0903640.
XX PF 10-SEP-1998; 98WO-US18824.
PR 14-SEP-1998; 98WO-US19177.
PR 16-SEP-1998; 98WO-US19330.
PR 17-SEP-1998; 98WO-US19437.
PR 01-DEC-1998; 98WO-US25108.
PR 08-SEP-1999; 98WO-US20594.
PR 13-SEP-1999; 98WO-US20944.
PR 15-SEP-1999; 98WO-US21090.
PR 15-SEP-1999; 98WO-US21547.
PR 05-OCT-1999; 98WO-US23089.
PR 29-NOV-1999; 98WO-US28214.
PR 30-NOV-1999; 98WO-US28313.
PR 01-DEC-1999; 98WO-US28301.
PR 02-DEC-1999; 98WO-US28584.
PR 02-DEC-1999; 98WO-US28565.
PR 16-DEC-1999; 98WO-US30095.
PR 20-DEC-1999; 98WO-US30911.
PR 20-DEC-1999; 98WO-US30911.
PR 05-JAN-2000; 2000WO-US00219.
PR 11-FEB-2000; 2000WO-US03565.
PR 22-FEB-2000; 2000WO-US04414.

PR 24-FEB-2000; 2000WO-US05004.
PR 02-MAR-2000; 2000WO-US05841.
PR 20-MAR-2000; 2000WO-US07377.
PR 30-MAR-2000; 2000WO-US08439.
PR 22-MAY-2000; 2000WO-US14042.
PR 02-JUN-2000; 2000WO-US15264.
PR 28-JUL-2000; 2000WO-US20710.
PR 24-AUG-2000; 2000WO-US23328.
PR 17-SEP-1997; 97US-059113P.
PR 17-SEP-1997; 97US-059115P.
PR 17-SEP-1997; 97US-059117P.
PR 17-SEP-1997; 97US-059119P.
PR 17-SEP-1997; 97US-059121P.
PR 17-SEP-1997; 97US-059122P.
PR 17-SEP-1997; 97US-059184P.
PR 18-SEP-1997; 97US-059263P.
PR 18-SEP-1997; 97US-059266P.
PR 15-OCT-1997; 97US-062125P.
PR 17-OCT-1997; 97US-062285P.
PR 17-OCT-1997; 97US-062287P.
PR 21-OCT-1997; 97US-063486P.
PR 24-OCT-1997; 97US-062814P.
PR 24-OCT-1997; 97US-062816P.
PR 24-OCT-1997; 97US-063045P.
PR 24-OCT-1997; 97US-063120P.
PR 24-OCT-1997; 97US-063121P.
PR 24-OCT-1997; 97US-063127P.
PR 24-OCT-1997; 97US-063128P.
PR 27-OCT-1997; 97US-063327P.
PR 27-OCT-1997; 97US-063329P.
PR 28-OCT-1997; 97US-063541P.
PR 28-OCT-1997; 97US-063542P.
PR 28-OCT-1997; 97US-063544P.
PR 28-OCT-1997; 97US-063549P.
PR 28-OCT-1997; 97US-063550P.
PR 28-OCT-1997; 97US-063564P.
PR 29-OCT-1997; 97US-063435P.
PR 29-OCT-1997; 97US-063704P.
PR 29-OCT-1997; 97US-063732P.
PR 29-OCT-1997; 97US-063734P.
PR 29-OCT-1997; 97US-063735P.
PR 29-OCT-1997; 97US-063738P.
PR 29-OCT-1997; 97US-064215P.
PR 31-OCT-1997; 97US-063870P.
PR 31-OCT-1997; 97US-064103P.
PR 03-NOV-1997; 97US-064248P.
PR 07-NOV-1997; 97US-064809P.
PR 12-NOV-1997; 97US-065186P.
PR 17-NOV-1997; 97US-065846P.
PR 18-NOV-1997; 97US-065693P.
PR 21-NOV-1997; 97US-066120P.
PR 21-NOV-1997; 97US-066364P.
PR 24-NOV-1997; 97US-066453P.
PR 24-NOV-1997; 97US-066466P.
PR 24-NOV-1997; 97US-066511P.
PR 24-NOV-1997; 97US-066770P.
PR 24-NOV-1997; 97US-066772P.
PR 25-NOV-1997; 97US-066840P.
PR 12-DEC-1997; 97US-069425P.
PR 04-JUN-1998; 98US-088026P.
PR 10-SEP-1998; 98US-099803P.
PR 14-SEP-1998; 98US-100262P.
PR 17-SEP-1998; 98US-100858P.
PR 13-OCT-1998; 98US-104080P.
PR 20-NOV-1998; 98US-109304P.
PR 22-DEC-1998; 98US-113296P.
PR 07-JUL-1999; 99US-143048P.
PR 26-JUL-1999; 99US-145698P.
PR 28-JUL-1999; 99US-146222P.
PR 18-SEP-2000; 2000US-0665350.

(GETH) GENENTECH INC.
XX PA
XX XX

PI Ashkenazi A, Botstein D, Desnoyers L, Eaton DL, Ferrara N;
PI Filvaroff E, Fong S, Gao W, Gerber H, Gerritsen ME, Goddard A;
PI Godowski PJ, Grimaldi JC, Gurney AL, Hillan KJ, Kljavin IJ;
PI Mather JP, Pan J, Paoni NE, Roy MA, Stewart TA, Tumas D;
PI Williams PM, Wood WI;
XX WPI; 2003-341586/32.
DR N-PSDB; ACA54942.
XX
XX New PRO polypeptides and nucleic acid molecules, useful in diagnosing
PT or treating inflammatory diseases, organ failure, atherosclerosis,
PT cardiac injury, infertility, cancer, AIDS, Alzheimer's disease or
PT Parkinson's disease -
XX
XX Claim 12; Fig 60; 473pp; English.
XX
XX The invention describes sixty one nucleic acids encoding PRO polypeptides
CC (secreted and transmembrane). The PRO polypeptides and nucleic acids are
CC useful in diagnosing or treating enterocolitis, gastrointestinal
CC ulceration, skin diseases associated with abnormal keratinocyte
CC differentiation, e.g. psoriasis or epithelial cancers such as squamous
CC cell carcinoma, Alzheimer's disease, Parkinson's disease, amyotrophic
CC lateral sclerosis, inflammatory diseases, e.g. rheumatoid arthritis,
CC asthma or multiple sclerosis, organ failure, atherosclerosis, cardiac
CC injury, infertility, birth defects, premature aging, AIDS, cancer,
CC diabetic complications, or mutations in general. The polypeptides are
CC also useful for wound repair and associated therapies concerned with
CC re-growth of tissue. The PRO polypeptides and nucleic acid molecules
CC are also useful in gene therapy, and as molecular weight markers for
CC protein electrophoresis purposes. The anti-PRO antibodies may be used
CC in diagnostic assays for PRO, or for the affinity purification of PRO
CC from recombinant cell culture or natural sources. This is the amino
CC acid sequence of a novel human PRO polypeptide.
XX
SQ Sequence 476 AA;

Query Match 99.4%; Score 2538; DB 24; Length 476;
Best Local Similarity 99.2%; Pred. No. 2.8e-240;
Matches 472; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

QY 1 MVGAMKVIIVSLVLLMPGCDGLFHSILYRSVSNPPKGDSCQPLFPYIEAGKIQKREL 60
DB 1 MVGAMKVIIVSLVLLMPGCDGLFHSILYRSVSNPPKGDSCQPLFPYIEAGKIQKREL 60
QY 61 SLVGPPPLNKMKSAGFLTNKYNLFWFFPAQIQPEDAPVNLWLOGPGGSSMXGL 120
DB 61 SLVGPPPLNKMKSAGFLTNKYNLFWFFPAQIQPEDAPVNLWLOGPGGSSMXGL 120
QY 121 FVEHGPVVTSSNMTLRDRDPFWTTTSMLYIDNPVGTGFTDTHGYAVNEDDVARDLY 180
DB 121 FVEHGPVVTSSNMTLRDRDPFWTTTSMLYIDNPVGTGFTDTHGYAVNEDDVARDLY 180
QY 181 SALIQFOIPEPKYNDFFYTGESYAGKYVPAIAHLIHSNLPVREKINLINGAIGDGYV 240
DB 181 SALIQFOIPEPKYNDFFYTGESYAGKYVPAIAHLIHSNLPVREKINLINGAIGDGYV 240
QY 241 DPSSIIGGYAEFYIQLLDEKOKYFKOCHECIEHRIKONNFEAFIILDKLDGDLTS 300
DB 241 DPSSIIGGYAEFYIQLLDEKOKYFKOCHECIEHRIKONNFEAFIILDKLDGDLTS 300
QY 301 DPSYFQNVTCGSNYNFLRTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVBEKYL 360
DB 301 DPSYFQNVTCGSNYNFLRTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVBEKYL 360
QY 361 EDTVQSVKPLWTIMMNYKVLINGQLDIIVAALATERSLMGMDWKSQYKKAEEKVWK 420
DB 361 EDTVQSVKPLWTIMMNYKVLINGQLDIIVAALATERSLMGMDWKSQYKKAEEKVWK 420
QY 421 IFKSDSEVAGYIRQVGFHVIIRGGHILPYDQPLRAFDMINRFYIGKWDPIVG 476
DB 421 IFKSDSEVAGYIRQVGFHVIIRGGHILPYDQPLRAFDMINRFYIGKWDPIVG 476

RESULT 10
ABU71316
ID ABU71316 standard; Protein; 476 AA.
XX
XX AC ABU71316;
XX DT 10-JUN-2003 (first entry)
XX DE Human PRO223 protein.
XX KW Human; PRO; secreted; transmembrane; cytosolic; TNF-alpha; blood;
KW tumour necrosis factor alpha release; chondrocyte cell; proliferation;
XX differentiation; tumour; gene therapy.
XX OS Homo sapiens.
XX PN US2003036143-A1.
XX PD 20-FEB-2003.
XX PF 02-JUL-2002; 2002US-0187600.
XX PR 16-SEP-1998; 98WO-US19330.
PR 07-OCT-1998; 98WO-US21144.
PR 01-DEC-1998; 98WO-US25108.
PR 08-MAR-1999; 99WO-US05028.
PR 14-MAY-1999; 99WO-US10733.
PR 02-JUN-1999; 99WO-US12252.
PR 01-SEP-1999; 99WO-US20111.
PR 15-SEP-1999; 99WO-US21090.
PR 01-DEC-1999; 99WO-US28301.
PR 02-DEC-1999; 99WO-US28551.
PR 30-DEC-1999; 99WO-US31274.
PR 05-JAN-2000; 2000WO-US00219.
PR 18-FEB-2000; 2000WO-US04341.
PR 22-FEB-2000; 2000WO-US04414.
PR 24-FEB-2000; 2000WO-US05004.
PR 01-MAR-2000; 2000WO-US05601.
PR 02-MAR-2000; 2000WO-US05841.
PR 15-MAR-2000; 2000WO-US06884.
PR 30-MAR-2000; 2000WO-US08439.
PR 17-MAY-2000; 2000WO-US13705.
PR 22-MAY-2000; 2000WO-US14042.
PR 30-MAY-2000; 2000WO-US14941.
PR 02-JUN-2000; 2000WO-US15264.
PR 28-JUL-2000; 2000WO-US20710.
PR 24-AUG-2000; 2000WO-US23328.
PR 08-NOV-2000; 2000WO-US30952.
PR 01-DEC-2000; 2000WO-US32678.
PR 20-DEC-2000; 2000WO-US34956.
PR 28-FEB-2001; 2001WO-US06520.
PR 01-JUN-2001; 2001WO-US17800.
PR 20-JUN-2001; 2001WO-US19692.
PR 29-JUN-2001; 2001WO-US21066.
PR 09-JUL-2001; 2001WO-US21735.
PR 29-AUG-2001; 2001WO-US27099.
PR 18-SEP-1997; 97US-059263P.
PR 18-SEP-1997; 97US-059266P.
PR 17-OCT-1997; 97US-062250P.
PR 21-OCT-1997; 97US-063486P.
PR 24-OCT-1997; 97US-063120P.
PR 24-OCT-1997; 97US-063121P.
PR 28-OCT-1997; 97US-063540P.
PR 28-OCT-1997; 97US-063541P.
PR 28-OCT-1997; 97US-063544P.
PR 28-OCT-1997; 97US-063564P.
PR 29-OCT-1997; 97US-063734P.
PR 31-OCT-1997; 97US-063870P.
PR 31-OCT-1997; 97US-064103P.
PR 13-NOV-1997; 97US-065311P.
PR 21-NOV-1997; 97US-066120P.
PR 24-NOV-1997; 97US-066466P.

```
PR 24-NOV-1997; 97US-066772P.
PR 11-DEC-1997; 97US-069335P.
PR 12-DEC-1997; 97US-069425P.
PR 17-DEC-1997; 97US-069870P.
PR 18-DEC-1997; 97US-068017P.
PR 10-MAR-1998; 98US-077450P.
PR 11-MAR-1998; 98US-077632P.
PR 11-MAR-1998; 98US-077649P.
PR 20-MAR-1998; 98US-078886P.
PR 20-MAR-1998; 98US-078939P.
PR 27-MAR-1998; 98US-079664P.
PR 27-MAR-1998; 98US-079786P.
PR 31-MAR-1998; 98US-080107P.
PR 31-MAR-1998; 98US-080194P.
PR 01-APR-1998; 98US-080327P.
PR 01-APR-1998; 98US-080333P.
PR 08-APR-1998; 98US-081049P.
PR 08-APR-1998; 98US-081070P.
PR 09-APR-1998; 98US-081195P.
PR 15-APR-1998; 98US-081838P.
PR 21-APR-1998; 98US-082568P.
PR 21-APR-1998; 98US-082569P.
PR 22-APR-1998; 98US-082704P.
PR 22-APR-1998; 98US-082797P.
PR 28-APR-1998; 98US-083322P.
PR 29-APR-1998; 98US-083495P.
PR 29-APR-1998; 98US-083496P.
PR 29-APR-1998; 98US-083499P.
PR 29-APR-1998; 98US-083559P.
PR 05-MAY-1998; 98US-084366P.
PR 06-MAY-1998; 98US-084414P.
PR 07-MAY-1998; 98US-084639P.
PR 07-MAY-1998; 98US-084640P.
PR 07-MAY-1998; 98US-084643P.
PR 15-MAY-1998; 98US-085579P.
PR 15-MAY-1998; 98US-085580P.
PR 15-MAY-1998; 98US-085582P.
PR 15-MAY-1998; 98US-085700P.
PR 18-MAY-1998; 98US-086023P.
PR 22-MAY-1998; 98US-086392P.
PR 22-MAY-1998; 98US-086486P.
PR 28-MAY-1998; 98US-087098P.
PR 28-MAY-1998; 98US-087208P.
PR 02-JUN-1998; 98US-087609P.
PR 02-JUN-1998; 98US-087759P.
PR 03-JUN-1998; 98US-087827P.
PR 04-JUN-1998; 98US-088023P.
PR 04-JUN-1998; 98US-088028P.
PR 04-JUN-1998; 98US-088029P.
PR 04-JUN-1998; 98US-088033P.
PR 04-JUN-1998; 98US-088036P.
PR 05-JUN-1998; 98US-088167P.
PR 05-JUN-1998; 98US-088202P.
PR 05-JUN-1998; 98US-088212P.
PR 05-JUN-1998; 98US-088217P.
PR 09-JUN-1998; 98US-088655P.
PR 10-JUN-1998; 98US-088722P.
PR 10-JUN-1998; 98US-088738P.
PR 10-JUN-1998; 98US-088740P.
PR 10-JUN-1998; 98US-088811P.
PR 10-JUN-1998; 98US-088824P.
PR 10-JUN-1998; 98US-088825P.
PR 10-JUN-1998; 98US-088826P.
PR 11-JUN-1998; 98US-088861P.
PR 11-JUN-1998; 98US-088863P.
PR 11-JUN-1998; 98US-088876P.
PR 12-JUN-1998; 98US-089090P.
PR 12-JUN-1998; 98US-089105P.
PR 16-JUN-1998; 98US-089512P.
PR 16-JUN-1998; 98US-089514P.
PR 17-JUN-1998; 98US-089538P.
PR 17-JUN-1998; 98US-089598P.
PR 17-JUN-1998; 98US-089653P.
PR 18-JUN-1998; 98US-089908P.
PR 19-JUN-1998; 98US-089952P.
PR 22-JUN-1998; 98US-090246P.
PR 22-JUN-1998; 98US-090252P.
PR 22-JUN-1998; 98US-090252P.
PR 24-JUN-1998; 98US-090429P.
PR 24-JUN-1998; 98US-090435P.
PR 24-JUN-1998; 98US-090444P.
PR 24-JUN-1998; 98US-090461P.
PR 24-JUN-1998; 98US-090535P.
PR 24-JUN-1998; 98US-090540P.
PR 25-JUN-1998; 98US-090676P.
PR 25-JUN-1998; 98US-090678P.
PR 25-JUN-1998; 98US-090688P.
PR 25-JUN-1998; 98US-090690P.
PR 25-JUN-1998; 98US-090694P.
PR 25-JUN-1998; 98US-090695P.
PR 25-JUN-1998; 98US-090696P.
PR 26-JUN-1998; 98US-090862P.
PR 26-JUN-1998; 98US-090863P.
PR 26-JUN-1998; 98US-091010P.
PR 01-JUL-1998; 98US-091359P.
PR 01-JUL-1998; 98US-091544P.
PR 02-JUL-1998; 98US-091478P.
PR 02-JUL-1998; 98US-091486P.
PR 02-JUL-1998; 98US-091626P.
PR 02-JUL-1998; 98US-091628P.
PR 02-JUL-1998; 98US-091632P.
PR 24-JUL-1998; 98US-094006P.
PR 04-AUG-1998; 98US-095282P.
PR 10-AUG-1998; 98US-095998P.
PR 10-AUG-1998; 98US-096012P.
PR 17-AUG-1998; 98US-096757P.
PR 17-AUG-1998; 98US-096766P.
PR 17-AUG-1998; 98US-096867P.
PR 17-AUG-1998; 98US-096891P.
PR 17-AUG-1998; 98US-096897P.
PR 18-AUG-1998; 98US-096949P.
PR 18-AUG-1998; 98US-096959P.
PR 18-AUG-1998; 98US-097022P.
PR 26-AUG-1998; 98US-097952P.
PR 26-AUG-1998; 98US-097954P.
PR 26-AUG-1998; 98US-097955P.
PR 26-AUG-1998; 98US-097971P.
PR 26-AUG-1998; 98US-097974P.
PR 26-AUG-1998; 98US-098014P.
PR 01-SEP-1998; 98US-098716P.
PR 01-SEP-1998; 98US-098723P.
PR 02-SEP-1998; 98US-098803P.
PR 02-SEP-1998; 98US-098821P.
PR 02-SEP-1998; 98US-098843P.
PR 09-SEP-1998; 98US-099602P.
PR 10-SEP-1998; 98US-099741P.
PR 10-SEP-1998; 98US-099754P.
PR 10-SEP-1998; 98US-099763P.
PR 10-SEP-1998; 98US-099812P.
Query Match 99.4%; Score 2538; DB 24; Length 476;
Best Local Similarity 99.2%; Pred. No. 2.8e-240;
Matches 472; Conservative 0; Mismatches 4; Indels 0; Gaps 0;
Qy 1 MYGAMMKVIVSLVLLMPGPGCDGLFHSLYRSVSMPPKGDGSQLFTPTYTEAGKIQKREL 60
Db 1 MYGAMMKVIVSLVLLMPGPGCDGLFHSLYRSVSMPPKGDGSQLFTPTYTEAGKIQKREL 60
Qy 61 SLVGPPPLNKMKSAGFLTVNKTNSNLFVFWFFPAQIQPEDAPVVLWLOGGPGSSMXGL 120
Db 61 SLVGPPPLNKMKSAGFLTVNKTNSNLFVFWFFPAQIQPEDAPVVLWLOGGPGSSMXGL 120
Qy 121 FVEHGPVVTSNNTLRDRFPWTTTYSMLYIYNPVGTGSPFTDDTHGYAVNEDDVARDLY 180
Db 121 FVEHGPVVTSNNTLRDRFPWTTTYSMLYIYNPVGTGSPFTDDTHGYAVNEDDVARDLY 180
```

QY	181	SLALIOFFQI	FPYKXND	FVVTG	SVAGKYVPAIAHLI	HSLN	PREVKIN	LNGIAIGD	GYS	240				
Db	181	SLALIOFFQI	FPYKXND	FVVTG	SVAGKYVPAIAHLI	HSLN	PREVKIN	LNGIAIGD	GYS	240				
QY	241	DPESIIGG	VAEFLY	QIGLLD	EKKYFKQ	KQCECHIE	HRKONW	FEAFEIL	DKLDDGLTS	300				
Db	241	DPESIIGG	VAEFLY	QIGLLD	EKKYFKQ	KQCECHIE	HRKONW	FEAFEIL	DKLDDGLTS	300				
QY	301	DPSEYFQNV	TGCSN	YNFLR	CTEPE	DQLYVVK	FLSL	PEVRQAI	HVGNQTF	FNDGTIVE	KYL	360		
Db	301	DPSEYFQNV	TGCSN	YNFLR	CTEPE	DQLYVVK	FLSL	PEVRQAI	HVGNQTF	FNDGTIVE	KYL	360		
QY	361	EDTVOS	VKPMW	TEIN	NNYKVLI	YNGQ	LDII	VAAAL	TERSL	MGMD	WKSQ	SEYKKA	EKKVWK	420
Db	361	EDTVOS	VKPMW	TEIN	NNYKVLI	YNGQ	LDII	VAAAL	TERSL	MGMD	WKSQ	SEYKKA	EKKVWK	420
QY	421	IFKSDSE	VAGY	YRQGD	PHQV	VIIRGG	GHIL	PVDO	PLRAF	DMIN	FEI	YKGM	DPVVG	476
Db	421	IFKSDSE	VAGY	YRQGD	PHQV	VIIRGG	GHIL	PVDO	PLRAF	DMIN	FEI	YKGM	DPVVG	476
RESULT 11														
ABU71473														
ID	ABU71473	standard; Protein; 476 AA.												
XX	XX	ABU71473;												
XX	XX	AC												
XX	XX	DT												
XX	XX	10-JUN-2003 (first entry)												
XX	XX	Human PRO polypeptide #29.												
XX	XX	Human; secreted and transmembrane protein; PRO polypeptide; cancer;												
XX	XX	Alzheimer's disease; ischaemia; cytostatic; neuroprotective.												
KW	KW													
XX	XX	Homo sapiens.												
OS	XX	US2002192659-A1.												
PN	XX	19-DEC-2002.												
PD	XX													
XX	XX	10-JUL-2001; 2001US-0902853.												
XX	XX	10-SEP-1998; 98WO-US18824.												
PR	PR	14-SEP-1998; 98WO-US19177.												
PR	PR	16-SEP-1998; 98WO-US19330.												
PR	PR	17-SEP-1998; 98WO-US19437.												
PR	PR	01-DEC-1998; 98WO-US25108.												
PR	PR	08-SEP-1999; 99WO-US20594.												

ABU71919
ID ABU71919 standard; Protein; 476 AA.
XX AC ABU71919;
XX DT 12-JUN-2003 (first entry)
XX DE Human secreted/transmembrane protein PRO223.
XX KW Human; secreted protein; transmembrane protein; PRO;
KW gene therapy; chromosome identification; chromosome marker.
XX OS Homo sapiens.
XX US2003003530-A1.
PN 02-JAN-2003.
PD 11-JUL-2001; 2001US-0904011.
PF 10-SEP-1998; 98WO-US18824.
XX 14-SEP-1998; 98WO-US19177.
PR 16-SEP-1998; 98WO-US19330.
PR 17-SEP-1998; 98WO-US19437.
PR 01-DEC-1998; 98WO-US25108.
PR 08-SEP-1999; 99WO-US20594.
PR 13-SEP-1999; 99WO-US20944.
PR 15-SEP-1999; 99WO-US21090.
PR 15-SEP-1999; 99WO-US21547.
PR 05-OCT-1999; 99WO-US23089.
PR 29-NOV-1999; 99WO-US28214.
PR 30-NOV-1999; 99WO-US28313.
PR 01-DEC-1999; 99WO-US28301.
PR 02-DEC-1999; 99WO-US28564.
PR 02-DEC-1999; 99WO-US28565.
PR 16-DEC-1999; 99WO-US30095.
PR 20-DEC-1999; 99WO-US30911.
PR 20-DEC-1999; 99WO-US30999.
PR 05-JAN-2000; 2000WO-US00219.
PR 11-FEB-2000; 2000WO-US03565.
PR 22-FEB-2000; 2000WO-US04414.
PR 24-FEB-2000; 2000WO-US05004.
PR 02-MAR-2000; 2000WO-US05841.
PR 30-MAR-2000; 2000WO-US07377.
PR 22-MAY-2000; 2000WO-US08439.
PR 02-JUN-2000; 2000WO-US14042.
PR 28-JUL-2000; 2000WO-US15264.
PR 24-AUG-2000; 2000WO-US20710.
PR 17-SEP-1997; 97US-059113P.
PR 17-SEP-1997; 97US-059115P.
PR 17-SEP-1997; 97US-059117P.
PR 17-SEP-1997; 97US-059119P.
PR 17-SEP-1997; 97US-059121P.
PR 17-SEP-1997; 97US-059122P.
PR 17-SEP-1997; 97US-059184P.
PR 18-SEP-1997; 97US-059263P.
PR 18-SEP-1997; 97US-059266P.
PR 15-OCT-1997; 97US-062125P.
PR 17-OCT-1997; 97US-062285P.
PR 17-OCT-1997; 97US-062287P.
PR 21-OCT-1997; 97US-063486P.
PR 24-OCT-1997; 97US-062814P.
PR 24-OCT-1997; 97US-062816P.
PR 24-OCT-1997; 97US-063045P.
PR 24-OCT-1997; 97US-063120P.
PR 24-OCT-1997; 97US-063121P.
PR 24-OCT-1997; 97US-063122P.
PR 24-OCT-1997; 97US-063128P.
PR 27-OCT-1997; 97US-063327P.
PR 27-OCT-1997; 97US-063329P.
PR 28-OCT-1997; 97US-063541P.
PR 28-OCT-1997; 97US-063542P.
PR 28-OCT-1997; 97US-063544P.
PR 28-OCT-1997; 97US-063549P.
PR 28-OCT-1997; 97US-063550P.
PR 28-OCT-1997; 97US-063564P.
PR 29-OCT-1997; 97US-063435P.
PR 29-OCT-1997; 97US-063704P.
PR 29-OCT-1997; 97US-063732P.
PR 29-OCT-1997; 97US-063734P.
PR 29-OCT-1997; 97US-063735P.
PR 29-OCT-1997; 97US-063738P.
PR 31-OCT-1997; 97US-064215P.
PR 31-OCT-1997; 97US-063870P.
PR 31-OCT-1997; 97US-064103P.
PR 03-NOV-1997; 97US-064248P.
PR 07-NOV-1997; 97US-064809P.
PR 12-NOV-1997; 97US-065186P.
PR 17-NOV-1997; 97US-065846P.
PR 18-NOV-1997; 97US-065693P.
PR 21-NOV-1997; 97US-066120P.
PR 21-NOV-1997; 97US-066364P.
PR 24-NOV-1997; 97US-066453P.
PR 24-NOV-1997; 97US-066466P.
PR 24-NOV-1997; 97US-066511P.
PR 24-NOV-1997; 97US-066770P.
PR 24-NOV-1997; 97US-066772P.
PR 18-SEP-2000; 2000US-0665350.
XX (GETH) GENENTECH INC.
XX Ashkenazi A, Botstein D, Desnoyers L, Eaton DL, Ferrara N;
PI Filvaroff E, Fong S, Gao W, Gerber H, Gerritsen ME, Goddard A;
PI Godowski PJ, Grimaldi JC, Gurney AL, Hillan KJ, Kljavin Iu;
PI Mather JP, Pan J, Paoni NF, Roy MA, Stewart TA, Tumas D;
PI Williams PM, Wood WI;
XX WPI: 2003-329602/31.
DR N-PSDB; ACR60134.
XX New transmembrane polypeptides and nucleic acids encoding the
PT polypeptides, useful in gene therapy, in chromosome identification, as
PT chromosome markers, in generating probes and in tissue typing -
XX Claim 12; Fig 60; 484pp; English.
XX The invention relates to an isolated nucleic acid with at least 80%
CC nucleic acid sequence identity to a nucleotide sequence encoding one of
CC 61 secreted/transmembrane polypeptides, or PRO polypeptides or encoding a
CC PRO protein extracellular domain. Also included are a vector comprising
CC the PRO nucleic acid, a host cell comprising the vector, producing a PRO
CC polypeptide (by culturing the host cell for the expression of the PRO
CC polypeptide, and recovering the PRO polypeptide from the cell culture),
CC an isolated PRO polypeptide (having at least 80% sequence identity
CC to: (a) an amino acid sequence selected from the 61 PRO proteins;
CC (b) an amino acid sequence encoded by a nucleic acid molecule deposited
CC with an ATCC number (detailed in the specification); or (c) an
CC extracellular domain of a PRO polypeptide or to a PRO polypeptide lacking
CC its associated signal peptide), a chimeric molecule comprising a PRO
CC polypeptide of fused to a heterologous amino acid sequence, an anti-PRO
CC antibody, detecting a PRO245 or PRO1868 in a sample suspected of
CC containing the polypeptide, linking a bioactive molecule to a cell
CC expressing a PRO245 or PRO1868 and modulating at least one biological
CC activity of a cell expressing a PRO245 or PRO1868. Nucleic acids which
CC encode PRO can be used to generate either transgenic animals or knock-out
CC animals which may be used in the development and screening of
CC therapeutically useful reagents. The nucleic acids may also be used in
CC gene therapy, in chromosome identification, as chromosome markers, or in
CC generating probes. The PRO polypeptides are useful as molecular markers
CC for recombinantly expressing those markers. The PRO polypeptides and
CC nucleic acids may also be used in tissue typing. Anti-PRO antibodies
CC are useful in diagnostic assays for PRO, and in affinity purification
CC of PRO from recombinant cell culture or natural sources. The
CC present sequence represents a PRO protein.

RESULT 13

PR 06-MAY-1998; 98US-084414P.
PR 07-MAY-1998; 98US-084633P.
PR 07-MAY-1998; 98US-084640P.
PR 07-MAY-1998; 98US-084643P.
PR 15-MAY-1998; 98US-085579P.
PR 15-MAY-1998; 98US-085580P.
PR 15-MAY-1998; 98US-085582P.
PR 15-MAY-1998; 98US-085700P.
PR 18-MAY-1998; 98US-086020P.
PR 22-MAY-1998; 98US-086392P.
PR 22-MAY-1998; 98US-086486P.
PR 28-MAY-1998; 98US-087098P.
PR 28-MAY-1998; 98US-087208P.
PR 02-JUN-1998; 98US-087603P.
PR 02-JUN-1998; 98US-087753P.
PR 03-JUN-1998; 98US-087827P.
PR 04-JUN-1998; 98US-088025P.
PR 04-JUN-1998; 98US-088028P.
PR 04-JUN-1998; 98US-088029P.
PR 04-JUN-1998; 98US-088033P.
PR 04-JUN-1998; 98US-088326P.
PR 05-JUN-1998; 98US-088167P.
PR 05-JUN-1998; 98US-088202P.
PR 05-JUN-1998; 98US-088212P.
PR 05-JUN-1998; 98US-088217P.
PR 03-JUN-1998; 98US-088653P.
PR 10-JUN-1998; 98US-088722P.
PR 10-JUN-1998; 98US-088738P.
PR 10-JUN-1998; 98US-088740P.
PR 10-JUN-1998; 98US-088811P.
PR 10-JUN-1998; 98US-088824P.
PR 10-JUN-1998; 98US-088825P.
PR 10-JUN-1998; 98US-088826P.
PR 11-JUN-1998; 98US-088861P.
PR 11-JUN-1998; 98US-088863P.
PR 11-JUN-1998; 98US-088876P.
PR 12-JUN-1998; 98US-089090P.
PR 12-JUN-1998; 98US-089105P.
PR 16-JUN-1998; 98US-089512P.
PR 16-JUN-1998; 98US-089514P.
PR 17-JUN-1998; 98US-089538P.
PR 17-JUN-1998; 98US-089598P.
PR 17-JUN-1998; 98US-089653P.
PR 18-JUN-1998; 98US-089908P.
PR 19-JUN-1998; 98US-089952P.
PR 22-JUN-1998; 98US-090246P.
PR 22-JUN-1998; 98US-090252P.
PR 22-JUN-1998; 98US-090254P.
PR 24-JUN-1998; 98US-090429P.
PR 24-JUN-1998; 98US-090435P.
PR 24-JUN-1998; 98US-090444P.
PR 24-JUN-1998; 98US-090461P.
PR 24-JUN-1998; 98US-090535P.
PR 24-JUN-1998; 98US-090540P.
PR 25-JUN-1998; 98US-090676P.
PR 25-JUN-1998; 98US-090678P.
PR 25-JUN-1998; 98US-090688P.
PR 25-JUN-1998; 98US-090690P.
PR 25-JUN-1998; 98US-090694P.
PR 25-JUN-1998; 98US-090695P.
PR 25-JUN-1998; 98US-090696P.
PR 26-JUN-1998; 98US-090862P.
PR 26-JUN-1998; 98US-090863P.
PR 26-JUN-1998; 98US-091010P.
PR 01-JUL-1998; 98US-091359P.
PR 01-JUL-1998; 98US-091544P.
PR 02-JUL-1998; 98US-091478P.
PR 02-JUL-1998; 98US-091486P.
PR 02-JUL-1998; 98US-091628P.
PR 02-JUL-1998; 98US-091628P.
PR 02-JUL-1998; 98US-091628P.
PR 24-JUL-1998; 98US-094006P.
PR 04-AUG-1998; 98US-095282P.

PR 10-AUG-1998; 98US-095998P.
PR 10-AUG-1998; 98US-096012P.
PR 17-AUG-1998; 98US-096757P.
PR 17-AUG-1998; 98US-096766P.
PR 17-AUG-1998; 98US-096867P.
PR 17-AUG-1998; 98US-096891P.
PR 17-AUG-1998; 98US-096897P.
PR 18-AUG-1998; 98US-096949P.
PR 18-AUG-1998; 98US-096959P.
PR 26-AUG-1998; 98US-097022P.
PR 26-AUG-1998; 98US-097952P.
PR 26-AUG-1998; 98US-097954P.
PR 26-AUG-1998; 98US-097955P.
PR 26-AUG-1998; 98US-097971P.
PR 26-AUG-1998; 98US-097974P.
PR 01-SEP-1998; 98US-098014P.
PR 01-SEP-1998; 98US-098716P.
PR 02-SEP-1998; 98US-098723P.
PR 02-SEP-1998; 98US-098803P.
PR 02-SEP-1998; 98US-098821P.
PR 02-SEP-1998; 98US-098843P.
PR 09-SEP-1998; 98US-099602P.
PR 10-SEP-1998; 98US-099741P.

Query Match 99.4%; Score 2538; DB 24; Length 476;
Best Local Similarity 99.2%; Pred. No. 2.8e-240;
Matches 472; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

QY 1 MVGAMWKVIVSLVLLMPGCDGLPHSLYRSVSMPPKSGDGLFLTPYIEAGKIQKREL 60
|||
Db 1 MVGAMWKVIVSLVLLMPGCDGLPHSLYRSVSMPPKSGDGLFLTPYIEAGKIQKREL 60
|||

QY 61 SLVGPPPLNPKSYAGFLTVNKTNSNLFVFPFPAIQPEDAPVVLWLOGGSGSMKGL 120
|||
Db 61 SLVGPPPLNPKSYAGFLTVNKTNSNLFVFPFPAIQPEDAPVVLWLOGGSGSMFGL 120
|||

QY 121 FVEHGPYVVTNMTLRDRDPWTTTXXSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
|||
Db 121 FVEHGPYVVTNMTLRDRDPWTTTXXSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
|||

QY 181 SALIOFFQIFPEYKQNDFFVTGTSYAGKYVPAIAHLIHSNFPVREVKINLNGIAIGDGYS 240
|||
Db 181 SALIOFFQIFPEYKQNDFFVTGTSYAGKYVPAIAHLIHSNFPVREVKINLNGIAIGDGYS 240
|||

QY 241 DPESIIGGYAEFLYQIGLLDEKQKQYFQKQCHCEHIEHKKQWFEAFELDKLLDGLTS 300
|||
Db 241 DPESIIGGYAEFLYQIGLLDEKQKQYFQKQCHCEHIEHKKQWFEAFELDKLLDGLTS 300
|||

QY 301 DPSYFQNTGCSNYNFLRCTEPEDQLYYVKFSLPEVROAIVHGNQTFNDGTIVEKYUR 360
|||
Db 301 DPSYFQNTGCSNYNFLRCTEPEDQLYYVKFSLPEVROAIVHGNQTFNDGTIVEKYUR 360
|||

QY 361 EDTVQSVKEPWLTEIMNNYKVLIIYNGQLDIIAAALTERSLMGMDWKSGOEYKKAEEKVWK 420
|||
Db 361 EDTVQSVKEPWLTEIMNNYKVLIIYNGQLDIIAAALTERSLMGMDWKSGOEYKKAEEKVWK 420
|||

QY 421 IPKSDSEVAGYIRQGDHGHVIRGGGHILPDQDLRAPDMNIRIYKGNWDPYVG 476
|||
Db 421 IPKSDSEVAGYIRQGDHGHVIRGGGHILPDQDLRAPDMNIRIYKGNWDPYVG 476
|||

RESULT 14
ABU66106
ID ABU66106 standard; Protein; 476 AA.
XX
AC ABU66106;
XX
DT 20-MAY-2003 (first entry)
XX
DE Novel human secreted and transmembrane protein PRO223.
XX
KW Human; secreted protein; transmembrane protein; cytostatic;
KW gene therapy; TNF-Agonist-Alpha; chondrocyte stimulator; tumour;

KW adrenal tumour; lung tumour; colon tumour; breast tumour;
KW prostate tumour; rectal tumour; cervical tumour; liver tumour.

XX Homo sapiens.

XX US2003036157-A1.

XX 20-FEB-2003.

XX 02-JUL-2002; 2002US-0188769.

XX 16-SEP-1998; 98WO-US19330.

XX 07-OCT-1998; 98WO-US21141.

XX 01-DEC-1998; 98WO-US25108.

XX 08-MAR-1999; 99WO-US05028.

XX 14-MAY-1999; 99WO-US10733.

XX 02-JUN-1999; 99WO-US12252.

XX 01-SEP-1999; 99WO-US20111.

XX 15-SEP-1999; 99WO-US21090.

XX 01-DEC-1999; 99WO-US28301.

XX 02-DEC-1999; 99WO-US28551.

XX 30-DEC-1999; 99WO-US31374.

XX 05-JAN-2000; 2000WO-US00219.

XX 18-FEB-2000; 2000WO-US04341.

XX 18-FEB-2000; 2000WO-US04342.

XX 22-FEB-2000; 2000WO-US04414.

XX 24-FEB-2000; 2000WO-US05004.

XX 01-MAR-2000; 2000WO-US05601.

XX 02-MAR-2000; 2000WO-US05841.

XX 15-MAR-2000; 2000WO-US06884.

XX 30-MAR-2000; 2000WO-US08439.

XX 17-MAY-2000; 2000WO-US13705.

XX 22-MAY-2000; 2000WO-US14042.

XX 30-MAY-2000; 2000WO-US14941.

XX 02-JUN-2000; 2000WO-US15264.

XX 28-JUL-2000; 2000WO-US20710.

XX 24-AUG-2000; 2000WO-US23328.

XX 08-NOV-2000; 2000WO-US30952.

XX 01-DEC-2000; 2000WO-US32678.

XX 20-DEC-2000; 2000WO-US34956.

XX 28-FEB-2001; 2001WO-US06520.

XX 01-JUN-2001; 2001WO-US17800.

XX 20-JUN-2001; 2001WO-US19692.

XX 29-JUN-2001; 2001WO-US21066.

XX 09-JUL-2001; 2001WO-US21735.

98US-079786P.

98US-080107P.

98US-080194P.

98US-080327P.

98US-080333P.

98US-081049P.

98US-081070P.

98US-081195P.

98US-081838P.

98US-082568P.

98US-082569P.

98US-082704P.

98US-082797P.

98US-083322P.

98US-083495P.

98US-083496P.

98US-083499P.

98US-083559P.

98US-084366P.

98US-084414P.

98US-084639P.

98US-084640P.

98US-084643P.

98US-085579P.

98US-085580P.

98US-085582P.

98US-085700P.

98US-086023P.

98US-086392P.

98US-086486P.

98US-087098P.

98US-087208P.

98US-087609P.

98US-087759P.

98US-087827P.

98US-088025P.

98US-088028P.

98US-088029P.

98US-088033P.

98US-088326P.

98US-088167P.

98US-088202P.

98US-088212P.

98US-088217P.

98US-088655P.

98US-088722P.

98US-088738P.

98US-088740P.

98US-088811P.

98US-088824P.

98US-088825P.

98US-088826P.

98US-088861P.

98US-088863P.

98US-088876P.

98US-089090P.

98US-089105P.

98US-089512P.

98US-089514P.

98US-089538P.

98US-089598P.

98US-089653P.

98US-089908P.

98US-089952P.

98US-090246P.

98US-090252P.

98US-090254P.

98US-090429P.

98US-090435P.

KW

KW

XX

OS

XX

XX

PN

XX

XX

PD

XX

XX

PF

XX

XX

PR

PR

PR

PR

PR

PR

PR

PR

PR

PR

PR

PR

PR

PR

PR

PR

PR

PR

PR

PR

PR

PR

PR

PR

PR

PR

PR

PR

PR

PR

PR

PR

PR

PR

PR

PR

PR

PR

PR

PR

PR

PR

PR

PR

PR

PR

PR

PR

PR

PR

PR

PR

PR

PR

```
PR 25-JUN-1998; 98US-090676P.
PR 25-JUN-1998; 98US-090678P.
PR 25-JUN-1998; 98US-090688P.
PR 25-JUN-1998; 98US-090690P.
PR 25-JUN-1998; 98US-090694P.
PR 25-JUN-1998; 98US-090695P.
PR 25-JUN-1998; 98US-090696P.
PR 25-JUN-1998; 98US-090696P.
PR 26-JUN-1998; 98US-090862P.
PR 26-JUN-1998; 98US-090863P.
PR 26-JUN-1998; 98US-091010P.
PR 01-JUL-1998; 98US-091359P.
PR 01-JUL-1998; 98US-091544P.
PR 02-JUL-1998; 98US-091478P.
PR 02-JUL-1998; 98US-091486P.
PR 02-JUL-1998; 98US-091628P.
PR 02-JUL-1998; 98US-091628P.
PR 02-JUL-1998; 98US-091628P.
PR 02-JUL-1998; 98US-091632P.
PR 02-JUL-1998; 98US-091632P.
PR 04-AUG-1998; 98US-095282P.
PR 10-AUG-1998; 98US-095998P.
PR 10-AUG-1998; 98US-096012P.
PR 17-AUG-1998; 98US-096757P.
PR 17-AUG-1998; 98US-096766P.
PR 17-AUG-1998; 98US-096867P.
PR 17-AUG-1998; 98US-096891P.
PR 17-AUG-1998; 98US-096897P.
PR 18-AUG-1998; 98US-096894P.
PR 18-AUG-1998; 98US-096959P.
PR 18-AUG-1998; 98US-097022P.
PR 26-AUG-1998; 98US-097952P.
PR 26-AUG-1998; 98US-097954P.
PR 26-AUG-1998; 98US-097955P.
PR 26-AUG-1998; 98US-097971P.
PR 26-AUG-1998; 98US-097974P.
PR 26-AUG-1998; 98US-098014P.
PR 01-SEP-1998; 98US-098716P.
PR 01-SEP-1998; 98US-098723P.
PR 02-SEP-1998; 98US-098803P.
PR 02-SEP-1998; 98US-098821P.
PR 02-SEP-1998; 98US-098821P.
PR 09-SEP-1998; 98US-098843P.
PR 09-SEP-1998; 98US-099602P.
PR 10-SEP-1998; 98US-099741P.
PR 10-SEP-1998; 98US-099754P.
PR 10-SEP-1998; 98US-099763P.

Query Match 99.4%; Score 2538; DB 24; Length 476;
Best Local Similarity 99.2%; Pred. No. 2.8e-240;
Matches 472; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 1 MVGAMWKVIVSLVLLMFGPCDGLFSLYRSVSMPPKGDGQPLFTPTPIEAGKIQKREL 60
Db 1 MVGAMWKVIVSLVLLMFGPCDGLFSLYRSVSMPPKGDGQPLFTPTPIEAGKIQKREL 60

Qy 61 SLVGPFPLNMKSYAGELTVNKTNSNLFWMFPFPAQIQPEDAPVVLWLOGPGGSSMXGL 120
Db 61 SLVGPFPLNMKSYAGELTVNKTNSNLFWMFPFPAQIQPEDAPVVLWLOGPGGSSMFL 120

Qy 121 FVEHGPVYVNTMLRDRDPWTTXSMYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
Db 121 FVEHGPVYVNTMLRDRDPWTTXSMYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180

Qy 181 SALIQFOIPEYKNNDFYVTGESYAGKYVPAIAHLIHSNPNREVKNINLNGIAGDYS 240
Db 181 SALIQFOIPEYKNNDFYVTGESYAGKYVPAIAHLIHSNPNREVKNINLNGIAGDYS 240

Qy 241 DPSEIIGGYAEFLYOIGLLDEKQKFKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQK 300
Db 241 DPSEIIGGYAEFLYOIGLLDEKQKFKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQK 300

Qy 301 DPYFQNVTCGSNTYFNLCRTEPDDQLYYVKFLSLPVRQAIHVGNQTFNDGTIVEKYL 360
Db 301 DPYFQNVTCGSNTYFNLCRTEPDDQLYYVKFLSLPVRQAIHVGNQTFNDGTIVEKYL 360
```

```
Qy 361 EDTVQSVKPLWLTETMNNYKVLINQGLDIIIVAAALTEKSLMGMDWKSGOYKKAEXKWK 420
Db 361 EDTVQSVKPLWLTETMNNYKVLINQGLDIIIVAAALTEKSLMGMDWKSGOYKKAEXKWK 420

Qy 421 IFKSDSEVAGYIRQVGDHFQVIRGGCHILPYDQPLRAFDMINRFRFYKGGWDPYVG 476
Db 421 IFKSDSEVAGYIRQVGDHFQVIRGGCHILPYDQPLRAFDMINRFRFYKGGWDPYVG 476

RESULT 15
ABU67373
ID ABU67373 standard; Protein; 476 AA.
XX
AC ABU67373;
XX
DT 29-MAY-2003 (first entry)
XX
DE Human secreted protein PRO223.
XX
KW Human; gene therapy; mucosal lesion; ulcer; enterocolitis; skin disease;
KW psoriasis; cancer; lung cancer; colon cancer; nerve cell disease;
KW Alzheimer's disease; Parkinson's disease; Usher syndrome; angiodenesis;
KW atrophla areata; inflammatory disease; asthma; rheumatoid arthritis;
KW ischaemia.
XX
OS Homo sapiens.
XX
PN US2003023054-A1.
XX
PD 30-JAN-2003.
XX
PF 16-JUL-2001; 2001US-0906742.
XX
PR 10-SEP-1998; 98WO-US18824.
PR 14-SEP-1998; 98WO-US19177.
PR 16-SEP-1998; 98WO-US19330.
PR 17-SEP-1998; 98WO-US19437.
PR 01-DEC-1998; 98WO-US25108.
PR 08-SEP-1999; 99WO-US20594.
PR 13-SEP-1999; 99WO-US20944.
PR 15-SEP-1999; 99WO-US21090.
PR 15-SEP-1999; 99WO-US21547.
PR 05-OCT-1999; 99WO-US23089.
PR 29-NOV-1999; 99WO-US28214.
PR 30-NOV-1999; 99WO-US28313.
PR 01-DEC-1999; 99WO-US28301.
PR 02-DEC-1999; 99WO-US28564.
PR 02-DEC-1999; 99WO-US28565.
PR 16-DEC-1999; 99WO-US30095.
PR 20-DEC-1999; 99WO-US30911.
PR 20-DEC-1999; 99WO-US30999.
PR 05-JAN-2000; 2000WO-US00219.
PR 11-FEB-2000; 2000WO-US03565.
PR 22-FEB-2000; 2000WO-US04414.
PR 24-FEB-2000; 2000WO-US05004.
PR 02-MAR-2000; 2000WO-US05841.
PR 20-MAR-2000; 2000WO-US07377.
PR 30-MAR-2000; 2000WO-US08439.
PR 22-MAY-2000; 2000WO-US14042.
PR 02-JUN-2000; 2000WO-US15264.
PR 28-JUL-2000; 2000WO-US20710.
PR 24-AUG-2000; 2000WO-US23328.
PR 17-SEP-1997; 97US-059113P.
PR 17-SEP-1997; 97US-059115P.
PR 17-SEP-1997; 97US-059117P.
PR 17-SEP-1997; 97US-059121P.
PR 17-SEP-1997; 97US-059122P.
PR 17-SEP-1997; 97US-059184P.
PR 18-SEP-1997; 97US-059263P.
PR 18-SEP-1997; 97US-059266P.
PR 15-OCT-1997; 97US-062125P.
PR 17-OCT-1997; 97US-062285P.
```


GenCore version 5.1.6
Copyright (c) 1993 - 2003 Compugen Ltd.

OM protein - protein search, using sw model

Run on: November 7, 2003, 16:42:09 ; Search time 21 Seconds
(without alignments)
959.046 Million cell updates/sec

Title: US-10-084-018-3
Perfect score: 2554
Sequence: 1 MVGAMWKVIVSLVLLMPGPC.....RAFDMINRFYKGDWDPYVG 476

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 328717 seqs, 42310858 residues

Total number of hits satisfying chosen parameters: 328717

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

- Database : Issued Patents AA:*
- 1: /cgn2_6/prodata/1/iaa/5A_COMB.pep.*
 - 2: /cgn2_6/prodata/1/iaa/5B_COMB.pep.*
 - 3: /cgn2_6/prodata/1/iaa/6A_COMB.pep.*
 - 4: /cgn2_6/prodata/1/iaa/6B_COMB.pep.*
 - 5: /cgn2_6/prodata/1/iaa/6CTUS_COMB.pep.*
 - 6: /cgn2_6/prodata/1/iaa/backfiles1.pep.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	2550	99.8	476	2	US-08-828-488-3
2	2550	99.8	476	4	US-09-299-689A-3
3	2512.5	98.4	477	2	US-08-828-488-1
4	2512.5	98.4	477	4	US-09-299-689A-1
5	1772.5	69.4	351	2	US-08-828-488-5
6	1772.5	69.4	351	4	US-09-299-689A-5
7	1014	39.7	471	2	US-08-828-488-7
8	1014	39.7	471	4	US-09-299-689A-7
9	557	21.8	480	2	US-08-828-488-8
10	557	21.8	480	4	US-09-299-689A-8
11	557	21.8	480	4	US-09-702-705-336
12	557	21.8	480	4	US-09-736-457-336
13	498.5	19.5	491	1	US-09-640-305-4
14	498.5	19.5	491	1	US-08-360-673-4
15	472.5	18.5	557	1	US-08-309-341-2
16	472.5	18.5	557	1	US-08-608-267-2
17	472.5	18.5	557	1	US-08-608-452-2
18	472.5	18.5	557	1	US-08-608-224-2
19	472.5	18.5	557	2	US-08-967-149-2
20	455.5	17.8	557	1	US-08-309-341-4
21	455.5	17.8	557	1	US-08-608-267-4
22	455.5	17.8	557	1	US-08-608-452-4
23	455.5	17.8	557	1	US-08-608-224-4
24	455.5	17.8	557	2	US-08-967-149-4
25	432	16.9	532	2	US-08-899-324-33
26	432	16.9	532	3	US-08-329-892B-33
27	427	16.7	421	2	US-08-807-263-4

28	379.5	14.9	423	3	US-08-943-714-9	Sequence 9, Appli
29	361	14.1	554	3	US-08-943-714-2	Sequence 2, Appli
30	352	13.8	446	1	US-08-665-966-10	Sequence 10, Appli
31	352	13.8	446	3	US-09-041-780-10	Sequence 10, Appli
32	330.5	12.9	523	3	US-08-943-714-11	Sequence 11, Appli
33	299.5	11.7	481	3	US-08-943-714-10	Sequence 10, Appli
34	278	10.9	530	3	US-08-943-714-12	Sequence 12, Appli
35	235	9.2	179	1	US-08-665-966-8	Sequence 8, Appli
36	235	9.2	179	3	US-09-041-780-8	Sequence 8, Appli
37	103	4.0	2548	4	US-09-172-422-1	Sequence 1, Appli
38	102	4.0	622	2	US-08-664-646A-2	Sequence 2, Appli
39	102	4.0	622	2	US-09-066-285-2	Sequence 2, Appli
40	102	4.0	622	3	US-09-261-006-2	Sequence 2, Appli
41	102	4.0	622	3	US-08-951-088-2	Sequence 2, Appli
42	102	4.0	622	4	US-09-609-566-2	Sequence 2, Appli
43	102	4.0	622	4	US-09-609-570-2	Sequence 2, Appli
44	102	4.0	622	4	US-09-427-372-2	Sequence 2, Appli
45	102	4.0	622	4	US-09-693-554-2	Sequence 2, Appli

ALIGNMENTS

RESULT 1
US-08-828-488-3
; Sequence 3, Application US/08828488
; Patent No. 592521
; GENERAL INFORMATION:
; APPLICANT: Bandman, Olga
; APPLICANT: Hawkins, Phillip R.
; APPLICANT: Hillman, Jennifer L.
; APPLICANT: Lal, Preeti
; APPLICANT: Goli, Surya K.
; TITLE OF INVENTION: NOVEL HUMAN SERINE
; TITLE OF INVENTION: CARBOXYPEPTIDASE
; NUMBER OF SEQUENCES: 8
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Incyte Pharmaceuticals, Inc.
; STREET: 3174 Porter Drive
; CITY: Palo Alto
; STATE: CA
; COUNTRY: USA
; ZIP: 94304
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette
; COMPUTER: IBM Compatible
; OPERATING SYSTEM: DOS
; SOFTWARE: FASTSEQ for Windows Version 2.0
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/828,488
; FILING DATE: Filed Herewith
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER:
; FILING DATE:
; ATTORNEY/AGENT INFORMATION:
; NAME: Billings, Lucy J.
; REGISTRATION NUMBER: 36,749
; REFERENCE/DOCKET NUMBER: PF-0241 US
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 415-855-0555
; TELEFAX: 415-845-4166
; INFORMATION FOR SEQ ID NO: 3:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 476 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; IMMEDIATE SOURCE:
; LIBRARY: MMLR3DT01
; CLONE: 566993
US-08-828-488-3

Query Match 99.8%; Score 2550; DB 2; Length 476;

Best Local Similarity 100.0%; Pred. No. 1e-259;
Matches 476; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MVGAMWKVIVSLVLLMPGCDGLFHSLSYRSVSMPPKDGSGQPLFLTPYIEAGKIQKREL 60
DB 1 MVGAMWKVIVSLVLLMPGCDGLFHSLSYRSVSMPPKDGSGQPLFLTPYIEAGKIQKREL 60
QY 61 SLVGPPFGLNPKSYAGFLTVNKTYSNLFFWFFPAQIQPEDAPVVLWLOGGPGSSMXGL 120
DB 61 SLVGPPFGLNPKSYAGFLTVNKTYSNLFFWFFPAQIQPEDAPVVLWLOGGPGSSMXGL 120
QY 121 FVEHGPVYVTSNMTLRDRDPFWTTXSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
DB 121 FVEHGPVYVTSNMTLRDRDPFWTTXSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
QY 181 SALIQFOIFPEYKNDPYYVTGSGYAGKYVPAIAHLIHSNPNREVKNLNGIAIGDGY 240
DB 181 SALIQFOIFPEYKNDPYYVTGSGYAGKYVPAIAHLIHSNPNREVKNLNGIAIGDGY 240
QY 241 DPESIIGYAEFLYQIGLLDEKQKYYFQKQCHECIEHIRKQNWFEAFELDKLLDGLTS 300
DB 241 DPESIIGYAEFLYQIGLLDEKQKYYFQKQCHECIEHIRKQNWFEAFELDKLLDGLTS 300
QY 301 DPYSFQNVTCGSNYNFLRCTEPEDQLYYKFLSLPEVROAIHVGNOTFNDGTIVEKYLR 360
DB 301 DPYSFQNVTCGSNYNFLRCTEPEDQLYYKFLSLPEVROAIHVGNOTFNDGTIVEKYLR 360
QY 361 EDTVQSVKPLTEIMNNYKVLINYGQDIIIVAAALTEKSLMGMDWKSGQYKKAQKVK 420
DB 361 EDTVQSVKPLTEIMNNYKVLINYGQDIIIVAAALTEKSLMGMDWKSGQYKKAQKVK 420
QY 421 IFKSDSEVAGYIRQVGFHVIIRGGHILPYDQPLRAFDMINRFYKGMWDPYVG 476
DB 421 IFKSDSEVAGYIRQVGFHVIIRGGHILPYDQPLRAFDMINRFYKGMWDPYVG 476

RESULT 2

US-09-299-689A-3
; Sequence 3, Application US/09299689A
; Patent No. 6379913
; GENERAL INFORMATION:
; APPLICANT: Bandman, Olga
; APPLICANT: Hawkins, Phillip R.
; APPLICANT: Hillman, Jennifer L.
; APPLICANT: Lal, Preeti
; APPLICANT: Goli, Surya K.
; TITLE OF INVENTION: NOVEL HUMAN SERINE
; TITLE OF INVENTION: CARBOXYPEPTIDASE
; NUMBER OF SEQUENCES: 8
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Incyte Pharmaceuticals, Inc.
; STREET: 3174 Porter Drive
; CITY: Palo Alto
; STATE: CA
; COUNTRY: USA
; ZIP: 94304
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette
; COMPUTER: IBM Compatible
; OPERATING SYSTEM: DOS
; SOFTWARE: FASTSEQ for Windows Version 2.0
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/299,689A
; FILING DATE:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/828,488
; FILING DATE:
; ATTORNEY/AGENT INFORMATION:
; NAME: Billings, Lucy J.
; REGISTRATION NUMBER: 36,749
; REFERENCE/DOCKET NUMBER: PF-0241 US
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 415-855-0555

TELEFAX: 415-845-4166
; INFORMATION FOR SEQ ID NO: 3:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 476 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; IMMEDIATE SOURCE:
; LIBRARY: MMLRJD01
; CLONE: 566993
US-09-299-689A-3

Query Match 99.8%; Score 2550; DB 4; Length 476;
Best Local Similarity 100.0%; Pred. No. 1e-259;
Matches 476; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MVGAMWKVIVSLVLLMPGCDGLFHSLSYRSVSMPPKDGSGQPLFLTPYIEAGKIQKREL 60
DB 1 MVGAMWKVIVSLVLLMPGCDGLFHSLSYRSVSMPPKDGSGQPLFLTPYIEAGKIQKREL 60
QY 61 SLVGPPFGLNPKSYAGFLTVNKTYSNLFFWFFPAQIQPEDAPVVLWLOGGPGSSMXGL 120
DB 61 SLVGPPFGLNPKSYAGFLTVNKTYSNLFFWFFPAQIQPEDAPVVLWLOGGPGSSMXGL 120
QY 121 FVEHGPVYVTSNMTLRDRDPFWTTXSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
DB 121 FVEHGPVYVTSNMTLRDRDPFWTTXSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
QY 181 SALIQFOIFPEYKNDPYYVTGSGYAGKYVPAIAHLIHSNPNREVKNLNGIAIGDGY 240
DB 181 SALIQFOIFPEYKNDPYYVTGSGYAGKYVPAIAHLIHSNPNREVKNLNGIAIGDGY 240
QY 241 DPESIIGYAEFLYQIGLLDEKQKYYFQKQCHECIEHIRKQNWFEAFELDKLLDGLTS 300
DB 241 DPESIIGYAEFLYQIGLLDEKQKYYFQKQCHECIEHIRKQNWFEAFELDKLLDGLTS 300
QY 301 DPYSFQNVTCGSNYNFLRCTEPEDQLYYKFLSLPEVROAIHVGNOTFNDGTIVEKYLR 360
DB 301 DPYSFQNVTCGSNYNFLRCTEPEDQLYYKFLSLPEVROAIHVGNOTFNDGTIVEKYLR 360
QY 361 EDTVQSVKPLTEIMNNYKVLINYGQDIIIVAAALTEKSLMGMDWKSGQYKKAQKVK 420
DB 361 EDTVQSVKPLTEIMNNYKVLINYGQDIIIVAAALTEKSLMGMDWKSGQYKKAQKVK 420
QY 421 IFKSDSEVAGYIRQVGFHVIIRGGHILPYDQPLRAFDMINRFYKGMWDPYVG 476
DB 421 IFKSDSEVAGYIRQVGFHVIIRGGHILPYDQPLRAFDMINRFYKGMWDPYVG 476

RESULT 3

US-08-828-488-1
; Sequence 1, Application US/08828488
; Patent No. 5925521
; GENERAL INFORMATION:
; APPLICANT: Bandman, Olga
; APPLICANT: Hawkins, Phillip R.
; APPLICANT: Hillman, Jennifer L.
; APPLICANT: Lal, Preeti
; APPLICANT: Goli, Surya K.
; TITLE OF INVENTION: NOVEL HUMAN SERINE
; TITLE OF INVENTION: CARBOXYPEPTIDASE
; NUMBER OF SEQUENCES: 8
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Incyte Pharmaceuticals, Inc.
; STREET: 3174 Porter Drive
; CITY: Palo Alto
; STATE: CA
; COUNTRY: USA
; ZIP: 94304
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette
; COMPUTER: IBM Compatible
; OPERATING SYSTEM: DOS

SOFTWARE: FastSeq for Windows Version 2.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/828,488
FILING DATE: Filed Herewith
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
FILING DATE:
ATTORNEY/AGENT INFORMATION:
NAME: Billings, Lucy J.
REGISTRATION NUMBER: 36,749
REFERENCE/DOCKET NUMBER: PP-0241 US
TELEPHONE: 415-855-0555
TELEFAX: 415-845-4166
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
LENGTH: 477 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
IMMEDIATE SOURCE:
LIBRARY: MPHGNOT03
CLONE: 443004

Query Match 98.4%; Score 2512.5; DB 2; Length 477;

Best Local Similarity 98.5%; Pred. No. 9e-256;
Matches 470; Conservative 0; Mismatches 6; Indels 1; Gaps 1;

```
QY 1 MVGAMKVIIVSLVLLMPGCDGLFHSLYRSVSMPPKGDSCQPLFLTPYIEAGKIQKREL 60
DB 1 MVGAMKVIIVSLVLLMPGCDGLFHSLYRSVSMPPKGDSCQPLFLTPYIEAGKIQKREL 60
QY 61 SLVGPPFGLNMKSYAGELTVNKTYSNLFWFPPAQIQPEDAPVWLQGGSGSMXGL 120
DB 61 SLVGPPFGLNMKSYADELTVNKTYSNLFWFPPAQIQPEDAPVWLQGGSGSMFGL 120
QY 121 FVEHGPYVVTNSMTLRDRDPFWTTTSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
DB 121 FVEHGPYVVTNSMTLRDRDPFWTTTSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
QY 181 SALIQFQIIFPEYKXNDFFVTGSEYAGKYVPAIAHLIHSNLPVREVKNLNGIAIGDYS 240
DB 181 SALIQFQIIFPEYKXNDFFVTGSEYAGKYVPAIAHLIHSNLPVREVKNLNGIAIGDYS 240
QY 241 DPESIIGGYAEFLYQIGLLDEKOKYFQKOCHECHIEHIRKQNWFEAFIELDKLDGLTS 300
DB 241 DPESIIGGYAEFLYQIGLLDEKOKYFQKOCHECHIEHIRKQNWFEAFIELDKLDGLTS 300
QY 301 DPSYFQNVTCGSNYNFLRCTEPEDQLYYVKFSLPEVRQAIHVGNTQFNDGTIVEKYL 360
DB 301 DPSYFQNVTCGSNYNFLRCTEPEDQLYYVKFSLPEVRQAIHVGNTQFNDGTIVEKYL 360
QY 361 EDTVQSVKPMWLTETMNNYKVLINYGOLDIIIVAAALTERSLMGMDWKGSGQYKAE-KKW 419
DB 361 EDTVQSVKPMWLTETMNNYKVLINYGOLDIIIVAAALTERSLMGMDWKGSGQYKAEKKW 420
QY 420 KIFKSDSEVAGYIROVGDPHQVIRGGGHILPYDQPLRAFDMINRFTYKGDWDPYVG 476
DB 421 KIFKSDSGVAGYIROVGDPHQVIRGGGHILPYDQPLRAFDMINRFTYKGDWDPYVG 477
```

RESULT 4

US-09-299-689A-1
Sequence 1, Application US/09299689A
Patent No. 6379913
GENERAL INFORMATION:
APPLICANT: Bandman, Olga
APPLICANT: Hawkins, Phillip R.
APPLICANT: Hillman, Jennifer L.
APPLICANT: Lal, Preeti
APPLICANT: Goli, Surya K.
TITLE OF INVENTION: NOVEL HUMAN SERINE

TITLE OF INVENTION: CARBOXYPEPTIDASE
NUMBER OF SEQUENCES: 8
CORRESPONDENCE ADDRESS:
ADDRESSEE: Incyte Pharmaceuticals, Inc.
STREET: 3174 Porter Drive
CITY: Palo Alto
STATE: CA
COUNTRY: USA
ZIP: 94304
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
COMPUTER: IBM Compatible
OPERATING SYSTEM: DOS
SOFTWARE: FastSeq for Windows Version 2.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/299,689A
FILING DATE:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/828,488
FILING DATE:
ATTORNEY/AGENT INFORMATION:
NAME: Billings, Lucy J.
REGISTRATION NUMBER: 36,749
REFERENCE/DOCKET NUMBER: PP-0241 US
TELEPHONE: 415-855-0555
TELEFAX: 415-845-4166
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
LENGTH: 477 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
IMMEDIATE SOURCE:
LIBRARY: MPHGNOT03
CLONE: 443004

US-09-299-689A-1

Query Match 98.4%; Score 2512.5; DB 4; Length 477;

Best Local Similarity 98.5%; Pred. No. 9e-256;
Matches 470; Conservative 0; Mismatches 6; Indels 1; Gaps 1;

```
QY 1 MVGAMKVIIVSLVLLMPGCDGLFHSLYRSVSMPPKGDSCQPLFLTPYIEAGKIQKREL 60
DB 1 MVGAMKVIIVSLVLLMPGCDGLFHSLYRSVSMPPKGDSCQPLFLTPYIEAGKIQKREL 60
QY 61 SLVGPPFGLNMKSYAGELTVNKTYSNLFWFPPAQIQPEDAPVWLQGGSGSMXGL 120
DB 61 SLVGPPFGLNMKSYADELTVNKTYSNLFWFPPAQIQPEDAPVWLQGGSGSMFGL 120
QY 121 FVEHGPYVVTNSMTLRDRDPFWTTTSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
DB 121 FVEHGPYVVTNSMTLRDRDPFWTTTSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
QY 181 SALIQFQIIFPEYKXNDFFVTGSEYAGKYVPAIAHLIHSNLPVREVKNLNGIAIGDYS 240
DB 181 SALIQFQIIFPEYKXNDFFVTGSEYAGKYVPAIAHLIHSNLPVREVKNLNGIAIGDYS 240
QY 241 DPESIIGGYAEFLYQIGLLDEKOKYFQKOCHECHIEHIRKQNWFEAFIELDKLDGLTS 300
DB 241 DPESIIGGYAEFLYQIGLLDEKOKYFQKOCHECHIEHIRKQNWFEAFIELDKLDGLTS 300
QY 301 DPSYFQNVTCGSNYNFLRCTEPEDQLYYVKFSLPEVRQAIHVGNTQFNDGTIVEKYL 360
DB 301 DPSYFQNVTCGSNYNFLRCTEPEDQLYYVKFSLPEVRQAIHVGNTQFNDGTIVEKYL 360
QY 361 EDTVQSVKPMWLTETMNNYKVLINYGOLDIIIVAAALTERSLMGMDWKGSGQYKAE-KKW 419
DB 361 EDTVQSVKPMWLTETMNNYKVLINYGOLDIIIVAAALTERSLMGMDWKGSGQYKAEKKW 420
QY 420 KIFKSDSEVAGYIROVGDPHQVIRGGGHILPYDQPLRAFDMINRFTYKGDWDPYVG 476
DB 421 KIFKSDSGVAGYIROVGDPHQVIRGGGHILPYDQPLRAFDMINRFTYKGDWDPYVG 477
```

```

RESULT 5
US-08-828-488-5
; Sequence 5, Application US/08828488
; Patent No. 5925521
; GENERAL INFORMATION:
; APPLICANT: Bandman, Olga
; APPLICANT: Hawkins, Phillip R.
; APPLICANT: Hillman, Jennifer L.
; APPLICANT: Lal, Preeti
; APPLICANT: Goli, Surya K.
; TITLE OF INVENTION: NOVEL HUMAN SERINE
; TITLE OF INVENTION: CARBOXYPEPTIDASE
; NUMBER OF SEQUENCES: 8
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Incyte Pharmaceuticals, Inc.
; STREET: 3174 Porter Drive
; CITY: Palo Alto
; STATE: CA
; COUNTRY: USA
; ZIP: 94304
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette
; COMPUTER: IBM Compatible
; OPERATING SYSTEM: DOS
; SOFTWARE: FastSeq for Windows Version 2.0
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/828,488
; FILING DATE: Filed Herewith
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER:
; FILING DATE:
; ATTORNEY/AGENT INFORMATION:
; NAME: Billings, Lucy J.
; REGISTRATION NUMBER: 36,749
; REFERENCE/DOCKET NUMBER: PF-0241 US
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 415-855-0555
; TELEFAX: 415-845-4166
; INFORMATION FOR SEQ ID NO: 5:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 351 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; IMMEDIATE SOURCE:
; LIBRARY: COLNCR01
; CLONE: 770469
;
US-08-828-488-5
Query Match 69.4%; Score 1772.5; DB 2; Length 351;
Best Local Similarity 72.7%; Pred. No. 5e-178;
Matches 346; Conservative 2; Mismatches 3; Indels 125; Gaps 2;

QY 1 MVGAMWKVIVSLVLLMPGCDGLPHSLYRSVSMPPKGDGQPLFLTPYIEAGKIQKREL 60
Db 1 MVGAMWKVIVSLVLLMPGCDGLPHSLYRSVSMPPKGDGQPLFLTPYIEAGKI----- 54
QY 61 SLVGFPFGLNPKMSYAGFLTVNKTYSNLFVFFFPQAIOPEDAPVVLWLQGGPGGSSMXGL 120
Db 55 ----- 54
QY 121 FVEHGPVVTNSMTLRDRDPFWTTXSMLYIDNPVGFSTDDTHGYAVNEDDVARDLY 180
Db 55 -----YTGTSN----- 61
QY 181 SALLIQFOIPPEYKNDPFYVTGESYAGKYVPAIAHLIHSNPNREVKNINLNGAIGDYS 240
Db 62 -----FOIPPEYKNDPFYVTGESYAGKYVPAIAHLIHSNPNREVKNINLNGAIGDYS 115
QY 241 DPSEIIGGYAEFLYQIGLLDEKOKYFQKQCHIEHIRKQNWFEAFIELDKLLDGLTSL 300
Db 115 ----- 115

Db 116 DPSEIIGGYAEFLYQIGLLDEKOKYFQKQCHIEHIRKQNWFEAFIELDKLLDGLTSL 175
QY 301 DPSEYFQNTGCSNYNINFLRCTEPEDQLYYVKFSLPEVRQAIVHVGNTQTFDGTIVEKYLR 360
Db 176 DPSEYFQNTGCSNYNINFLRCTEPEDQLYYVKFSLPEVRQAIVHVGNTQTFDGTIVEKYLR 235
QY 361 EDTVQSVKPELMEIMNNYKVLINYGOLDIIVAAALTEKSLMDKSGOEYKKAEEKVWK 420
Db 236 EDTVQSVKPELMEIMNNYKVLINYGOLDIIVAAALTEKSLMDKSGOEYKKAEEKVWK 295
QY 421 IFKSDSEVAGYIRQVGDHFQVIRGGGHILPYDQPLRAFDMINRPFYKGGWDPYVG 476
Db 296 IFKSDSEVAGYIRQVGDHFQVIRGGGHILPYDQPLRAFDMINRPFYKGGWDPYVG 351

RESULT 6
US-09-299-689A-5
; Sequence 5, Application US/09299689A
; Patent No. 6379913
; GENERAL INFORMATION:
; APPLICANT: Bandman, Olga
; APPLICANT: Hawkins, Phillip R.
; APPLICANT: Hillman, Jennifer L.
; APPLICANT: Lal, Preeti
; APPLICANT: Goli, Surya K.
; TITLE OF INVENTION: NOVEL HUMAN SERINE
; TITLE OF INVENTION: CARBOXYPEPTIDASE
; NUMBER OF SEQUENCES: 8
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Incyte Pharmaceuticals, Inc.
; STREET: 3174 Porter Drive
; CITY: Palo Alto
; STATE: CA
; COUNTRY: USA
; ZIP: 94304
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette
; COMPUTER: IBM Compatible
; OPERATING SYSTEM: DOS
; SOFTWARE: FastSeq for Windows Version 2.0
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/299,689A
; FILING DATE:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/828,488
; FILING DATE:
; ATTORNEY/AGENT INFORMATION:
; NAME: Billings, Lucy J.
; REGISTRATION NUMBER: 36,749
; REFERENCE/DOCKET NUMBER: PF-0241 US
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 415-855-0555
; TELEFAX: 415-845-4166
; INFORMATION FOR SEQ ID NO: 5:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 351 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; IMMEDIATE SOURCE:
; LIBRARY: COLNCR01
; CLONE: 770469
;
US-09-299-689A-5
Query Match 69.4%; Score 1772.5; DB 4; Length 351;
Best Local Similarity 72.7%; Pred. No. 5e-178;
Matches 346; Conservative 2; Mismatches 3; Indels 125; Gaps 2;

QY 1 MVGAMWKVIVSLVLLMPGCDGLPHSLYRSVSMPPKGDGQPLFLTPYIEAGKIQKREL 60
Db 1 MVGAMWKVIVSLVLLMPGCDGLPHSLYRSVSMPPKGDGQPLFLTPYIEAGKI----- 54
QY 61 SLVGFPFGLNPKMSYAGFLTVNKTYSNLFVFFFPQAIOPEDAPVVLWLQGGPGGSSMXGL 120
```



```
; NAME: Billings, Lucy J.
; REGISTRATION NUMBER: 36,749
; REFERENCE/DOCKET NUMBER: PF-0241 US
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 415-855-0555
; TELEFAX: 415-845-4166
; INFORMATION FOR SEQ ID NO: 7:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 471 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; IMMEDIATE SOURCE:
; LIBRARY: GenBank
; CLONE: 1718107
;
US-09-299-689A-7

Query Match      39.7%; Score 1014; DB 4; Length 471;
Best Local Similarity 43.9%; Pred. No. 6.4e-98;
Matches 197; Conservative 95; Mismatches 145; Indels 12; Gaps 7;

QY 24 FHSLYRSVSMPPK-GDSGQPLFTPTPIEAGKIQKRELSLVGPPGGLNMKSYAGFLTVNK 82
   : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 26 YKLMRGASGPPRGESGEPLFTPLQDCKIEARNKARVNHPLSSVESYSGFMTVDA 85
   : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :

QY 83 TYSNLSFFWFPFPAQIQPEDAPVVLWLOGGPGGSMKGLFVEHGPVVTSMNTRDRDFPW 142
   : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 86 KXNSNLFVWVPAKNNREQAIPILWLOGGPGGASLFGMFEENGPFPHIRNKSVKQREYSW 145
   : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :

QY 143 TTTXSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLYSALIOFFQIFPEYKNDFFVTG 202
   : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 146 HQNHMIYIDNPVGTGFSFTDSEGSTNEEHGENLMKIQGFVLPNLLKHPFYISG 205
   : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :

QY 203 ESYAGKYVPAIAHLIHSNLPVREKINLNGIAGDGYSDPESIIIGGYAEFLYQIGLLDEK 262
   : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 206 ESYGGRFVPAFYAIH--NSQSPKINQGLAIGDGYTDLNQL-NYGEVLYBELGLIDLN 262
   : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :

QY 263 QKKYFQKQCHECHIRKQNWFAFEILDKLLDGLTSDPSYQNTGCSNYNFRCTE 322
   : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 263 GRKKFDEDTAAALACAEKDMNSANRLIOGLFDG-LDQGESYFKKVTGFSYNYNFKGDE 321
   : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :

QY 323 PEQD-LYVYKFLSLPEVRQAIHVGNTQTFNDG---TIVEKYLRDPTVQSVKPMLEIMNRY 378
   : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 322 ESKQDSVLMEFLSNPEVRKGIHVGELPFHSDGHKNKVAEMLSEDTLDTVAPWTKLLSHY 381
   : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :

QY 379 KVIYINGQLDIIIVAAALTEKSLMGMDWKSGOEYKKAETKVKYKFSQSEVAGYIRQVGF 438
   : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 382 RVLFYNGQLDIIICAYPMTVDFLMKMPDGDSEYKRAKREIYRV---DGEIAGYKKGAGRL 438
   : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :

QY 439 HOVIIRGGGHILPYDOPRAFDMINREIY 467
   : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 439 QEVLIRNAGHWPRDQKPAFDMITSETH 467
   : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
```

```
RESULT 9
US-0828-488-8
; Sequence 8, Application US/08828488
; Patent No. 5925521
; GENERAL INFORMATION:
; APPLICANT: Bandman, Olga
; APPLICANT: Hawkins, Phillip R.
; APPLICANT: Hillman, Jennifer L.
; APPLICANT: Lal, Preeti
; APPLICANT: Goli, Surya K.
; TITLE OF INVENTION: NOVEL HUMAN SERINE
; TITLE OF INVENTION: CARBOXYPEPTIDASE
; NUMBER OF SEQUENCES: 8
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Incyte Pharmaceuticals, Inc.
; STREET: 3174 Porter Drive
; CITY: Palo Alto
; STATE: CA
; COUNTRY: USA
```

```
; ZIP: 94304
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette
; COMPUTER: IBM Compatible
; OPERATING SYSTEM: DOS
; SOFTWARE: FastSeq for Windows Version 2.0
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/828,488
; FILING DATE: Filed Herewith
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER:
; FILING DATE:
; ATTORNEY/AGENT INFORMATION:
; NAME: Billings, Lucy J.
; REGISTRATION NUMBER: 36,749
; REFERENCE/DOCKET NUMBER: PF-0241 US
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 415-855-0555
; TELEFAX: 415-845-4166
; INFORMATION FOR SEQ ID NO: 8:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 480 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; IMMEDIATE SOURCE:
; LIBRARY: GenBank
; CLONE: 190283
;
US-08-828-488-8

Query Match      21.8%; Score 557; DB 2; Length 480;
Best Local Similarity 28.0%; Pred. No. 9.2e-50;
Matches 148; Conservative 91; Mismatches 162; Indels 128; Gaps 20;

QY 12 LVLLMPGCDGFLHSLYRSVSMPPKGDGQPLFTPTPIEAGKIQKRELSLVGPPFGL-- 69
   : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 1 MTRAPPPLFLLLLLLLLSWASGEAAP-----DQDSIOR-----LPGLAK 43
   : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :

QY 70 --NMKSYAGFLTVNKTYSNLSNLPFPPAQIQPEDAPVVLWLOGGPGGSMKGLFVEHGPY 127
   : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 44 QPSFRQYSGYL--KSGSGKHLHYWFVESQKDPENSPVVLWNLNGPGGCSLGLLTHGPF 101
   : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :

QY 128 VV-TSNMTLRDRDPFWTTXSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLYSALIOF 186
   : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 102 LVQPDGVTLEYPNPSWNLIANVLYLESFAGVGFSYDDKF-YATNDTEVAQNFEALQDF 160
   : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :

QY 187 FOIFPEYKNNDFPVVTGESYAGKYVPAIAHLIHSNLPVREKINLNGIAGDGYSDPESII 246
   : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 161 FRLPFEYKNNKFLTGESYAGIYIPTLAVLV-----MQDPSNMQGLAVNGLSVSEQND 215
   : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :

QY 247 GGYAEFLYQIGLLDEKQKKYFQKQC-----HECI----- 275
   : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 216 NSLVFYAYTHGLGNRLWSLSLQTHCCSQNKCNFYDNKDLCEVTNLQEVARIVGNGLNTY 275
   : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :

QY 276 -----EHIR-----KONWFAFEILDKLLDGD-LTSDPS 303
   : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 276 NLYAFACAGVPSPHRYEKDVTVVQDLGNIFTLPLKRWHLAL-----LRSGDKVRMDPP 330
   : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :

QY 304 YFQNTVGCNYYNFLRCTEPEDQLYVVKFLSLPEVRQAIHVGNTQTFNDGTIIVEKYLRDPT 363
   : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 331 -CTNITTAASYLN-----NPYRKALNIPQQLPOWDMCNFLVN-----LQYRR--L 373
   : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :

QY 364 VQSVKPMLEIMN--YKVIYNGQLDIIIVAAALTEKSLMGMDW--KSGOEYKKAETKVKW 419
   : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 374 YRSMNSQYKLLSSQKYLQYNGDVMAC-----NFMGDEWFVDSLNQKMEVQRREP 426
   : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :

QY 420 KIFKSDS--EVAGYIRQVGFHQVLIIRGGGHILPYDOPRAFDMINRPI 466
   : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 427 LVKYGDSGEQIAGFVKFESHIAFLTIKGAHGMVPTDKPLAFTMFSRFL 475
   : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
```

RESULT 10
US-09-299-689A-8

Sequence 8, Application US/09299689A
Patent No. 6379913
GENERAL INFORMATION:
APPLICANT: Bandman, Olga
APPLICANT: Hawkins, Phillip R.
APPLICANT: Hillman, Jennifer L.
APPLICANT: Lal, Preeti
APPLICANT: Goli, Surya K.
TITLE OF INVENTION: NOVEL HUMAN SERINE
CARBOXYPEPTIDASE
NUMBER OF SEQUENCES: 8
CORRESPONDENCE ADDRESS:
ADDRESSEE: Incyte Pharmaceuticals, Inc.
STREET: 3174 Porter Drive
CITY: Palo Alto
STATE: CA
COUNTRY: USA
ZIP: 94304
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
COMPUTER: IBM Compatible
OPERATING SYSTEM: DOS
SOFTWARE: FastSeq for Windows Version 2.0
CURRENT APPLICATION DATA: US/09/299,689A
FILING DATE:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/828,488
FILING DATE:
ATTORNEY/AGENT INFORMATION:
NAME: Billings, Lucy J.
REGISTRATION NUMBER: 36,749
REFERENCE/DOCKET NUMBER: PF-0241 US
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415-855-0555
TELEFAX: 415-845-4166
INFORMATION FOR SEQ ID NO: 8:
SEQUENCE CHARACTERISTICS:
LENGTH: 480 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
IMMEDIATE SOURCE:
LIBRARY: GenBank
CLONE: 190283
US-09-299-689A-8

Query Match 21.8%; Score 557; DB 4; Length 480;
Best Local Similarity 28.0%; Pred. No. 9.2e-50;
Matches 148; Conservative 91; Mismatches 162; Indels 128; Gaps 20;
QY 12 LVLMPGCDGLFHSILYRSVMPKGDGQPLFLTPYIEAGKIQKRELSLVGPFGL-- 69
Db 1 MIRAAPPFLFLLLLLLLWSASRGEAAP-----DQDEIQR-----LPLAK 43
QY 70 --NMKSAGFLTVNKTNSLNFVFPFPAIQPEDAPVVLWLOGGPGSSMXGLFVEHGPY 127
Db 44 QPSFRQYSGYL--KSSGSKHLHYWFVESQKDPNSPVVLWNGGPGCSSLDGLLTHGPF 101
QY 128 VV-TSNMTLRDRDPFWTTTSMLYIDNPVGTGFTDTHGYAVNEDDVARDLYSALIQF 186
Db 102 LVQPDGVTLEYPNYSWNLIANVLYLESFAGVGSYSDDKF-YATNDTEVAQSNFEALQDF 160
QY 187 FOIFPEYKNDFFVVTGESYAGKYVPAIAHLIHSNLPVREVKINLNGAIGDGYSDPESII 246
Db 161 FRUFPYKNNKFLTGSGYAGIYIPTLAVLV-----MODPSMNLQGLAVNGLSSYEQND 215
QY 247 GGVAEFLYQIGLDEKQKQYFQKQC-----HECI----- 275
Db 216 NSLVFYAYHGLGNRLWSSLQTHCCSQNKCNFYDNKDLCEVTNLOEVARIVGNSGLNIY 275
QY 276 -----EHIR-----KQNWFEAFIELDKLLDGD-LTSDPS 303
Db 276 -----EHIR-----KQNWFEAFIELDKLLDGD-LTSDPS 303
QY 276 -----EHIR-----KQNWFEAFIELDKLLDGD-LTSDPS 303
Db 276 -----EHIR-----KQNWFEAFIELDKLLDGD-LTSDPS 303
QY 276 -----EHIR-----KQNWFEAFIELDKLLDGD-LTSDPS 303
Db 276 -----EHIR-----KQNWFEAFIELDKLLDGD-LTSDPS 303

Db 276 NLVAPCAGGVPSHFYREKDTVVVQDLGNIFTRPLPKRMWQAL-----LRSGDKVRMDPP 330
QY 304 YFQNVTCGSNNYFNFLRCTEPEPOLYVVKFLSLPEVRQAIHVGNQTFNDGTIVKEKYLREDT 363
Db 331 -CTNTTAASTYLN-----NPVYKALNIPEQLPQWDMCNFLVN-----LQYRR--L 373
QY 364 VQSVKPMLEINNN--YKVLINQGLDIIAAALFERSLMGDMW--KGSQYKKAEEKVW 419
Db 374 YRSMNSQYKLLSSQKYLQYLLYNGDVMAC-----NFMGDWFVDSLNRQVEQRRPW 426
QY 420 KIFKSDS--EVAGYIRQVGDHFQVLIIRGGHLLPYDQPLRAEDMINRFI 466
Db 427 LVKYGDGEGEIAAGFVKFESHIAFLTIKAGHVMVPTDKPLAFTMFSRFL 475
RESULT 11
US-09-702-705-336
Sequence 336, Application US/09702705
Patent No. 6504010
GENERAL INFORMATION:
APPLICANT: Wang, Tongtong
APPLICANT: Bangur, Chaitanya S.
APPLICANT: Lodes, Michael A.
APPLICANT: Fanger, Gary
APPLICANT: Vedwick, Tom
APPLICANT: Carter, Darrick
APPLICANT: Retter, Marc
APPLICANT: Mannion, Jane
APPLICANT: Fan, Liqun
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY AND
DIAGNOSIS OF LUNG CANCER
FILE REFERENCE: 210121.478C14
CURRENT APPLICATION NUMBER: US/09/702,705
CURRENT FILING DATE: 2000-10-30
NUMBER OF SEQ ID NOS: 1833
SOFTWARE: FastSeq for Windows Version 3.0
SEQ ID NO 336
LENGTH: 480
TYPE: PRT
ORGANISM: Homo sapiens
US-09-702-705-336

Query Match 21.8%; Score 557; DB 4; Length 480;
Best Local Similarity 28.0%; Pred. No. 9.2e-50;
Matches 148; Conservative 91; Mismatches 162; Indels 128; Gaps 20;
QY 12 LVLMPGCDGLFHSILYRSVMPKGDGQPLFLTPYIEAGKIQKRELSLVGPFGL-- 69
Db 1 MIRAAPPFLFLLLLLLLWSASRGEAAP-----DQDEIQR-----LPLAK 43
QY 70 --NMKSAGFLTVNKTNSLNFVFPFPAIQPEDAPVVLWLOGGPGSSMXGLFVEHGPY 127
Db 44 QPSFRQYSGYL--KSSGSKHLHYWFVESQKDPNSPVVLWNGGPGCSSLDGLLTHGPF 101
QY 128 VV-TSNMTLRDRDPFWTTTSMLYIDNPVGTGFTDTHGYAVNEDDVARDLYSALIQF 186
Db 102 LVQPDGVTLEYPNYSWNLIANVLYLESFAGVGSYSDDKF-YATNDTEVAQSNFEALQDF 160
QY 187 FOIFPEYKNDFFVVTGESYAGKYVPAIAHLIHSNLPVREVKINLNGAIGDGYSDPESII 246
Db 161 FRUFPYKNNKFLTGSGYAGIYIPTLAVLV-----MODPSMNLQGLAVNGLSSYEQND 215
QY 247 GGVAEFLYQIGLDEKQKQYFQKQC-----HECI----- 275
Db 216 NSLVFYAYHGLGNRLWSSLQTHCCSQNKCNFYDNKDLCEVTNLOEVARIVGNSGLNIY 275
QY 276 -----EHIR-----KQNWFEAFIELDKLLDGD-LTSDPS 303
Db 276 NLVAPCAGGVPSHFYREKDTVVVQDLGNIFTRPLPKRMWQAL-----LRSGDKVRMDPP 330
QY 304 YFQNVTCGSNNYFNFLRCTEPEPOLYVVKFLSLPEVRQAIHVGNQTFNDGTIVKEKYLREDT 363
Db 331 -CTNTTAASTYLN-----NPVYKALNIPEQLPQWDMCNFLVN-----LQYRR--L 373


```

Qy 364 VOSUKPWLTETMWN--YKVLINGOLDIIVAAALTELSUMGMDW--KGSQYKKAEXKVV 419
Db 374 YRSMNSQYLKLLSSQKQITLLYNGVDWAC-----NFMGDEWFVDSLNGXMEYQRRPW 426
Qy 420 KIFKSDS--EVAGYIRQVGDPHQVILIRGGGHILPYDQPLRAFDMINRFI 466
Db 427 LVKYGDSGEQTAGFVKFESHFTALTIKGAGHWVPTDKPLAATMFSRFL 475

RESULT 12
US-09-736-457-336
; Sequence 336: Application US/09736457
; Patent No. 6509448
; GENERAL INFORMATION:
; APPLICANT: Wang, Tongtong
; APPLICANT: Bangur, Chaitanya S.
; APPLICANT: Lodes, Michael A.
; APPLICANT: Fanger, Gary
; APPLICANT: Vedvick, Tom
; APPLICANT: Carter, Darrick
; APPLICANT: Retter, Marc
; APPLICANT: Mannion, Jane
; APPLICANT: Fan, Liqun
; APPLICANT: Wang, Aijun
; TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY AND
; TREATMENT OF LUNG CANCER
; FILE REFERENCE: 210121.478C15
; CURRENT APPLICATION NUMBER: US/09/736,457
; CURRENT FILING DATE: 2000-12-13
; NUMBER OF SEQ ID NOS: 1864
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 336
; LENGTH: 480
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-736-457-336

```

```

Qy   420 KIFKSDS--EVAGYVIRGVGHQVHVIIRGGGHHLPYDQPLRAFDMINRRI 466
      : || ::||::: : |::|::|::|::|::|::|::|::|::|::|::|::|:
Db   427 LVKYGDSGEQTAGVFKEFHSFIATFLTIKGAGHMVPTDKPAAFTMFSREL 475

RESULT 13
US-09-640-305-4
; Sequence 4, Application US/09640305
; Patent No. RE37447
; GENERAL INFORMATION:
; APPLICANT: Fleer, Reinhard
;             Fournier, Alain
;             Yeh, Patrice
; TITLE OF INVENTION: MODIFIED KLJYVEROMYCES YEASTS, THEIR
;                 PREPARATION AND USE
; NUMBER OF SEQUENCES: 17
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Rhone-Poulenc Rorer Inc.
; STREET: 500 Arcoia Rd. 3C43
; CITY: Collegeville
; STATE: PA
; COUNTRY: USA
; ZIP: 19002
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/640.305
; FILING DATE: 16-Aug-2000
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US/08/360.673
; FILING DATE: 06-FEB-1995
; APPLICATION NUMBER: WO PCT/FR93/00623
; FILING DATE: 23-JUN-1993
; APPLICATION NUMBER: FR 92/07785
; FILING DATE: 25-JUN-1992
; ATTORNEY/AGENT INFORMATION:
; NAME: Smith, Julie K.
; REGISTRATION NUMBER: 38,619
; REFERENCE/DOCKET NUMBER: ST92040-US
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (610)454-3839
; TELEFAX: (610)454-3808
; INFORMATION FOR SEQ ID NO: 4:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 491 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; SEQUENCE DESCRIPTION: SEQ ID NO: 4:
US-09-640-305-4

Query Match          19.5%    Score 498.5; DB 1; Length 491;
Best Local Similarity 29.2%; Pred. No. 1.4e-43;
Matches 128; Conservative 81; Mismatches 151; Indels 79;

Qy   71 MKSYAGFLTNYKNTNSLNFFWFFPAQIQPEDAPVVLMLQGPGSGSMXGLFVEFE 476
      :|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|:
Db   80 VKQWSGYLDYQD--SKHFFYWFPESRNDPENDPVILMLNGGPGCSSFVGLFPEFE 477

Qy   131 SNMTLRDRDPFWTTTXXSNLIDNPVHGFGSFDTDDTHGYAVNEDDVARDLYSAL 478
      :|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|:
Db   138 ADLKPIYNPYSSWNASNVIFLDQPVGVGFSGYDSK---VSTDDAARKDYVIFLL 479
      :|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|:

Qy   191 PEYKNPDFYVTGESYACKYYPATAH---LHLSLNPVRVKNLNGAIAGDCGYSVS 480
      :|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|:
Db   195 PHURNPDFHISGSYGHYLPKIAHETAVVHA-----EDSSFNLSVLIIGNFTT 481
      :|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|:

Qy   243 --ESII---GGYAFELYIGILLDEKKYFKQKQCEHCIEHKRKQNWFPEAFIIL 482
      :|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|::|:

```


TELEPHONE: 415-855-0555
TELEFAX: 415-845-4166
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
LENGTH: 476 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
IMMEDIATE SOURCE:
LIBRARY: MMLR3D701
CLONE: 566993
SEQUENCE DESCRIPTION: SEQ ID NO: 3:
US-10-084-018-3

Query Match 99.8%; Score 2550; DB 14; Length 476;
Best Local Similarity 100.0%; Pred. No. 1.9e-238;
Matches 476; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 MVGAMWKVIVSLVLLMPGCDGLFHSLSYRSVSMPPKGDGSOPLFLTPYIEAGKIQKREL 60
DB 1 MVGAMWKVIVSLVLLMPGCDGLFHSLSYRSVSMPPKGDGSOPLFLTPYIEAGKIQKREL 60
QY 61 SLVGPPFGLNMKSYAGFLTVNKTNSNLFVWFFPAQIQPEDAPVVLWLGPGGSSMXGL 120
DB 61 SLVGPPFGLNMKSYAGFLTVNKTNSNLFVWFFPAQIQPEDAPVVLWLGPGGSSMXGL 120
QY 121 FVEHGPVYVTSNMTLRDRDPWTTTXXSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
DB 121 FVEHGPVYVTSNMTLRDRDPWTTTXXSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
QY 181 SALIQFFQIPPEYKNNDFYVTGESYAGKYVPAIAHLIHSNLPVREVKNLNGAIGDYS 240
DB 181 SALIQFFQIPPEYKNNDFYVTGESYAGKYVPAIAHLIHSNLPVREVKNLNGAIGDYS 240
QY 241 DPESIIIGYAEFLYQIGLLDEKQKYYFQKQCEHIEHIRKQNWFEAFELDKLLDGLTS 300
DB 241 DPESIIIGYAEFLYQIGLLDEKQKYYFQKQCEHIEHIRKQNWFEAFELDKLLDGLTS 300
QY 301 DPSYFQNTGCSNYNFLRCTEPEDQLYYVKFSLPEVROAIVHGNQTFNDGTIVEKYLR 360
DB 301 DPSYFQNTGCSNYNFLRCTEPEDQLYYVKFSLPEVROAIVHGNQTFNDGTIVEKYLR 360
QY 361 EDTVQSVKPLTEIMNNYKVLINQGLDIIIVAAALTERSLMGMDWKSGQYKKAEEKVWK 420
DB 361 EDTVQSVKPLTEIMNNYKVLINQGLDIIIVAAALTERSLMGMDWKSGQYKKAEEKVWK 420
QY 421 IFKSDSEVAGYIRQVGFHQVIRGGGHILPYDQPLRAFDMINRFTYKGMWDPYVG 476
DB 421 IFKSDSEVAGYIRQVGFHQVIRGGGHILPYDQPLRAFDMINRFTYKGMWDPYVG 476

RESULT 2
US-09-729-674-110
Sequence 110, Application US/09729674
Patent No. US2001003935A1
GENERAL INFORMATION:
APPLICANT: Jacobs, Kenneth
APPLICANT: McCoy, John M.
APPLICANT: LaVallie, Edward R.
APPLICANT: Collins-Racie, Lisa A.
APPLICANT: Evans, Cheryl
APPLICANT: Merberg, David
APPLICANT: Treacy, Maurice
APPLICANT: Agostino, Michael J.
APPLICANT: Steininger II, Robert J.
APPLICANT: Spaulding, Vikki
APPLICANT: Wong, Gordon G.
APPLICANT: Clark, Hilary
APPLICANT: Fecthel, Kim
TITLE OF INVENTION: SECRETED PROTEINS AND POLYNUCLEOTIDES ENCODING THEM
FILE REFERENCE: 6055-64X
CURRENT APPLICATION NUMBER: US/09/729,674

CURRENT FILING DATE: 2000-12-04
PRIOR APPLICATION NUMBER: 09/539,330
PRIOR FILING DATE: 2000-03-30
NUMBER OF SEQ ID NOS: 283
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 110
LENGTH: 476
TYPE: PRT
ORGANISM: Homo sapiens
US-09-729-674-110

Query Match 99.4%; Score 2539; DB 9; Length 476;
Best Local Similarity 99.2%; Pred. No. 2.3e-237;
Matches 472; Conservative 0; Mismatches 4; Indels 0; Gaps 0;
QY 1 MVGAMWKVIVSLVLLMPGCDGLFHSLSYRSVSMPPKGDGSOPLFLTPYIEAGKIQKREL 60
DB 1 MVGAMWKVIVSLVLLMPGCDGLFHSLSYRSVSMPPKGDGSOPLFLTPYIEAGKIQKREL 60
QY 61 SLVGPPFGLNMKSYAGFLTVNKTNSNLFVWFFPAQIQPEDAPVVLWLGPGGSSMXGL 120
DB 61 SLVGPPFGLNMKSYAGFLTVNKTNSNLFVWFFPAQIQPEDAPVVLWLGPGGSSMXGL 120
QY 121 FVEHGPVYVTSNMTLRDRDPWTTTXXSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
DB 121 FVEHGPVYVTSNMTLRDRDPWTTTXXSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
QY 181 SALIQFFQIPPEYKNNDFYVTGESYAGKYVPAIAHLIHSNLPVREVKNLNGAIGDYS 240
DB 181 SALIQFFQIPPEYKNNDFYVTGESYAGKYVPAIAHLIHSNLPVREVKNLNGAIGDYS 240
QY 241 DPESIIIGYAEFLYQIGLLDEKQKYYFQKQCEHIEHIRKQNWFEAFELDKLLDGLTS 300
DB 241 DPESIIIGYAEFLYQIGLLDEKQKYYFQKQCEHIEHIRKQNWFEAFELDKLLDGLTS 300
QY 301 DPSYFQNTGCSNYNFLRCTEPEDQLYYVKFSLPEVROAIVHGNQTFNDGTIVEKYLR 360
DB 301 DPSYFQNTGCSNYNFLRCTEPEDQLYYVKFSLPEVROAIVHGNQTFNDGTIVEKYLR 360
QY 361 EDTVQSVKPLTEIMNNYKVLINQGLDIIIVAAALTERSLMGMDWKSGQYKKAEEKVWK 420
DB 361 EDTVQSVKPLTEIMNNYKVLINQGLDIIIVAAALTERSLMGMDWKSGQYKKAEEKVWK 420
QY 421 IFKSDSEVAGYIRQVGFHQVIRGGGHILPYDQPLRAFDMINRFTYKGMWDPYVG 476
DB 421 IFKSDSEVAGYIRQVGFHQVIRGGGHILPYDQPLRAFDMINRFTYKGMWDPYVG 476

RESULT 3
US-09-909-320-164
Sequence 164, Application US/09909320
Patent No. US20020132240A1
GENERAL INFORMATION:
APPLICANT: Genentech, Inc.
APPLICANT: Ashkenazi, Avi
APPLICANT: Botstein, David
APPLICANT: Desroyers, Luc
APPLICANT: Eaton, Dan L.
APPLICANT: Ferrara, Napoleone
APPLICANT: Filvaroff, Ellen
APPLICANT: Fong, Sherman
APPLICANT: Gao, Wei-Qiang
APPLICANT: Gerber, Hanspeter
APPLICANT: Gerritsen, Mary E.
APPLICANT: Goddard, A.
APPLICANT: Godowski, Paul J.
APPLICANT: Grimaldi, Christopher J.
APPLICANT: Gurney, Austin L.
APPLICANT: Hillan, Kenneth, J.
APPLICANT: Kijavini, Ivar J.
APPLICANT: Mather, Jennie P.
APPLICANT: Pan, James
APPLICANT: Paoni, Nicholas F.

```

; APPLICANT: Roy, Margaret Ann
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Williams, P. Mickey
; APPLICANT: Wood, William, I.
; TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
; TITLE OF INVENTION: Acids Encoding the Same
; FILE REFERENCE: 10466-14
; CURRENT APPLICATION NUMBER: US/09/909,320
; CURRENT FILING DATE: 2002-01-04
; PRIOR APPLICATION NUMBER: PCT/US00/04414
; PRIOR FILING DATE: 2000-02-22
; PRIOR APPLICATION NUMBER: US 60/143,048
; PRIOR FILING DATE: 1999-07-07
; PRIOR APPLICATION NUMBER: US 60/145,698
; PRIOR FILING DATE: 1999-07-26
; PRIOR APPLICATION NUMBER: US 60/146,222
; PRIOR FILING DATE: 1999-07-28
; PRIOR APPLICATION NUMBER: PCT/US99/20594
; PRIOR FILING DATE: 1999-09-08
; PRIOR APPLICATION NUMBER: PCT/US99/20944
; PRIOR FILING DATE: 1999-09-13
; PRIOR APPLICATION NUMBER: PCT/US99/21090
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/21547
; PRIOR FILING DATE: 1999-11-29
; PRIOR APPLICATION NUMBER: PCT/US99/23089
; PRIOR FILING DATE: 1999-10-05
; PRIOR APPLICATION NUMBER: PCT/US99/28214
; PRIOR FILING DATE: 1999-11-30
; PRIOR APPLICATION NUMBER: PCT/US99/28313
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/28564
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/28565
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/30095
; PRIOR FILING DATE: 1999-12-16
; PRIOR APPLICATION NUMBER: PCT/US99/30911
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US99/30999
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US00/00219
; PRIOR FILING DATE: 2000-01-05
; NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 154
; LENGTH: 476
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-909-320-164

Query Match          99.4%; Score 2538; DB 10; Length 476;
Best Local Similarity 99.2%; Pred. No. 2.8e-237;
Matches 472; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy      1  MVGAMKVIYSLVLLMPCDGLFHSLSYRSVMPKGDGQPLFTPIYIAGKIQKREL 60
Db      1  MVGAMKVIYSLVLLMPCDGLFHSLSYRSVMPKGDGQPLFTPIYIAGKIQKREL 60

Qy      61  SLVGPFPLNNKSVAGFLTNKNTYNSNLFWFPPAQIQPEDAPVVLWLOGPGGSSMXGL 120
Db      61  SLVGPFPLNNKSVAGFLTNKNTYNSNLFWFPPAQIQPEDAPVVLWLOGPGGSSMXGL 120

Qy      121  FVEHGPVYVTSNMTLRDRDPFWTTXSNLYIDNPVGTGFTDDTHGYAVNEDDVARDLY 180
Db      121  FVEHGPVYVTSNMTLRDRDPFWTTXSNLYIDNPVGTGFTDDTHGYAVNEDDVARDLY 180

Qy      181  SALIQFQIPEYKNDFFYTGESYAGKYVPAIAHLIHSNLPREVKNLNGIAIGDGS 240
Db      181  SALIQFQIPEYKNDFFYTGESYAGKYVPAIAHLIHSNLPREVKNLNGIAIGDGS 240

Qy      241  DPESIIGYAEFLYQIGLLDEKQKFKQCHIEHIRKQNWFEAFIELDKLLDGLDLS 300

```

```

Db      241  DPESIIGYAEFLYQIGLLDEKQKFKQCHIEHIRKQNWFEAFIELDKLLDGLDLS 300
Qy      301  DPSYFQNTGCSNYNIFLRCTEPEDQLYVYKFLSLPEVRQAIHVGNGQTFNDGTIVEKYLR 360
Db      301  DPSYFQNTGCSNYNIFLRCTEPEDQLYVYKFLSLPEVRQAIHVGNGQTFNDGTIVEKYLR 360
Qy      361  EDTQSVKPLTEIMNNYKVLIIYNGQLDIIIVAAALTEKSLMDWKGSOEYKKAEEKVWK 420
Db      361  EDTQSVKPLTEIMNNYKVLIIYNGQLDIIIVAAALTEKSLMDWKGSOEYKKAEEKVWK 420
Qy      421  IFKSDSEVAGYIROVGDHFQVIRGGHILPYDQPLRAFDFMINRRIYKGGWDPYVG 476
Db      421  IFKSDSEVAGYIROVGDHFQVIRGGHILPYDQPLRAFDFMINRRIYKGGWDPYVG 476

RESULT 4
US-09-909-088B-164
; Sequence 164, Application US/09909088B
; Patent No. US20020146709A1
; GENERAL INFORMATION:
; APPLICANT: Genentech, Inc.
; APPLICANT: Ashkenazi, Avi
; APPLICANT: Botstein, David
; APPLICANT: Desnoyers, Luc
; APPLICANT: Eaton, Dan L.
; APPLICANT: Ferrara, Napoleone
; APPLICANT: Filvaroff, Ellen
; APPLICANT: Fong, Sherman
; APPLICANT: Gao, Wei-Qiang
; APPLICANT: Gerber, Hanspeter
; APPLICANT: Goddard, A.
; APPLICANT: Grimaldi, Christopher J.
; APPLICANT: Gurney, Austin L.
; APPLICANT: Hillan, Kenneth, J.
; APPLICANT: Kijavin, Ivar J.
; APPLICANT: Mather, Jennie P.
; APPLICANT: Pan, James
; APPLICANT: Paoni, Nicholas F.
; APPLICANT: Roy, Margaret Ann
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Williams, P. Mickey
; APPLICANT: Wood, William, I.
; TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
; TITLE OF INVENTION: Acids Encoding the Same
; FILE REFERENCE: 10466-14
; CURRENT APPLICATION NUMBER: US/09/909,088B
; CURRENT FILING DATE: 2001-07-18
; PRIOR APPLICATION NUMBER: PCT/US00/04414
; PRIOR FILING DATE: 2000-02-22
; PRIOR APPLICATION NUMBER: US 60/143,048
; PRIOR FILING DATE: 1999-07-07
; PRIOR APPLICATION NUMBER: US 60/145,698
; PRIOR FILING DATE: 1999-07-26
; PRIOR APPLICATION NUMBER: US 60/146,222
; PRIOR FILING DATE: 1999-07-28
; PRIOR APPLICATION NUMBER: PCT/US99/20594
; PRIOR FILING DATE: 1999-09-08
; PRIOR APPLICATION NUMBER: PCT/US99/20944
; PRIOR FILING DATE: 1999-09-13
; PRIOR APPLICATION NUMBER: PCT/US99/21090
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/21547
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/23089
; PRIOR FILING DATE: 1999-10-05
; PRIOR APPLICATION NUMBER: PCT/US99/28214
; PRIOR FILING DATE: 1999-11-29
; PRIOR APPLICATION NUMBER: PCT/US99/28313
; PRIOR FILING DATE: 1999-11-30
; PRIOR APPLICATION NUMBER: PCT/US99/28564

```

```

; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/28565
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/30095
; PRIOR FILING DATE: 1999-12-16
; PRIOR APPLICATION NUMBER: PCT/US99/30911
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US99/30999
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US99/30999
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US99/30999
; PRIOR FILING DATE: 2000-01-05
; PRIOR APPLICATION NUMBER: PCT/US00/00219
; NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 164
; LENGTH: 476
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-909-088B-164

Query Match          99.4%; Score 2538; DB 10; Length 476;
Best Local Similarity 99.2%; Pred. No. 2.8e-237;
Matches 472; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 1 MVGAMKVIIVSLVLLMPGCDGLFHSLYRSVSMPPKGDGQPLFLTPYIEAGKIQKREL 60
Db 1 MVGAMKVIIVSLVLLMPGCDGLFHSLYRSVSMPPKGDGQPLFLTPYIEAGKIQKREL 60
Qy 61 SLVGPPFGLNKSAGFLTVNKTNSNLPFWFFPAIQPEDAPVVLWLOGGPGSSMXGL 120
Db 61 SLVGPPFGLNKSAGFLTVNKTNSNLPFWFFPAIQPEDAPVVLWLOGGPGSSMXGL 120
Qy 121 FVEHGPVVTNSMTLRDRDPFWTTTSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
Db 121 FVEHGPVVTNSMTLRDRDPFWTTTSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
Qy 181 SALIQFQIFPEYKXNDPVYVTSYAGYKVPFAIAHLHSLNPVREVKNLNGIAIGDYS 240
Db 181 SALIQFQIFPEYKXNDPVYVTSYAGYKVPFAIAHLHSLNPVREVKNLNGIAIGDYS 240
Qy 241 DPESIIIGYAEFLVQIGLLDDEKQKFKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQK 300
Db 241 DPESIIIGYAEFLVQIGLLDDEKQKFKQKQKQKQKQKQKQKQKQKQKQKQKQKQKQK 300
Qy 301 DPSYFQNVGTGNSYFNLRCTEPEDOLYVVKFLSLPEVROAIHVGNOTFNDGTIVEKYL 360
Db 301 DPSYFQNVGTGNSYFNLRCTEPEDOLYVVKFLSLPEVROAIHVGNOTFNDGTIVEKYL 360
Qy 361 EDTVQSVKFWLTEMNNYKVLINQGLDIIVAALATERSLGMMDWKGQKQKQKQKQK 420
Db 361 EDTVQSVKFWLTEMNNYKVLINQGLDIIVAALATERSLGMMDWKGQKQKQKQKQK 420
Qy 421 IFKSDSEVAGYIRQAGDHPQVIRGGGHILPYDQPLRAFDMINRFYKGGWDPYVG 476
Db 421 IFKSDSEVAGYIRQAGDHPQVIRGGGHILPYDQPLRAFDMINRFYKGGWDPYVG 476

RESULT 5
US-09-905-291A-164
; Sequence 164, Application US/09905291A
; Patent No. US20020160374A1
; GENERAL INFORMATION:
; APPLICANT: Genentech, Inc.
; APPLICANT: Ashkenazi, Avi
; APPLICANT: Botstein, David
; APPLICANT: Desnovers, Luc
; APPLICANT: Eaton, Dan L.
; APPLICANT: Ferrara, Napoleone
; APPLICANT: Filvaroff, Ellen
; APPLICANT: Fong, Sherman
; APPLICANT: Gao, Wei-Qiang
; APPLICANT: Gerber, Hanspeter
; APPLICANT: Gerritsen, Mary E.
; APPLICANT: Goddard, A.
; APPLICANT: Godowski, Paul J.

```

```

; APPLICANT: Grimaldi, Christopher J.
; APPLICANT: Gurney, Austin L.
; APPLICANT: Hillan, Kenneth, J.
; APPLICANT: Kljavin, Ivar J.
; APPLICANT: Mather, Jennie P.
; APPLICANT: Pan, James
; APPLICANT: Paoni, Nicholas F.
; APPLICANT: Roy, Margaret Ann
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Williams, P. Mickey
; APPLICANT: Wood, William, I.
; TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
; TITLE OF INVENTION: Acids Encoding the Same
; FILE REFERENCE: 10466-14
; CURRENT APPLICATION NUMBER: US/09/905,291A
; CURRENT FILING DATE: 2001-07-12
; PRIOR APPLICATION NUMBER: PCT/US00/04414
; PRIOR FILING DATE: 2000-02-22
; PRIOR APPLICATION NUMBER: US 60/143,048
; PRIOR FILING DATE: 1999-07-07
; PRIOR APPLICATION NUMBER: US 60/145,698
; PRIOR FILING DATE: 1999-07-26
; PRIOR APPLICATION NUMBER: US 60/146,222
; PRIOR FILING DATE: 1999-07-28
; PRIOR APPLICATION NUMBER: PCT/US99/20594
; PRIOR FILING DATE: 1999-09-08
; PRIOR APPLICATION NUMBER: PCT/US99/20944
; PRIOR FILING DATE: 1999-09-13
; PRIOR APPLICATION NUMBER: PCT/US99/21090
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/21547
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/23089
; PRIOR FILING DATE: 1999-10-05
; PRIOR APPLICATION NUMBER: PCT/US99/28214
; PRIOR FILING DATE: 1999-11-29
; PRIOR APPLICATION NUMBER: PCT/US99/28313
; PRIOR FILING DATE: 1999-11-30
; PRIOR APPLICATION NUMBER: PCT/US99/28564
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/28565
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/30095
; PRIOR FILING DATE: 1999-12-16
; PRIOR APPLICATION NUMBER: PCT/US99/30911
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US99/30999
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US00/00219
; PRIOR FILING DATE: 2000-01-05
; NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 164
; LENGTH: 476
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-905-291A-164

Query Match          99.4%; Score 2538; DB 10; Length 476;
Best Local Similarity 99.2%; Pred. No. 2.8e-237;
Matches 472; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 1 MVGAMKVIIVSLVLLMPGCDGLFHSLYRSVSMPPKGDGQPLFLTPYIEAGKIQKREL 60
Db 1 MVGAMKVIIVSLVLLMPGCDGLFHSLYRSVSMPPKGDGQPLFLTPYIEAGKIQKREL 60
Qy 61 SLVGPPFGLNKSAGFLTVNKTNSNLPFWFFPAIQPEDAPVVLWLOGGPGSSMXGL 120
Db 61 SLVGPPFGLNKSAGFLTVNKTNSNLPFWFFPAIQPEDAPVVLWLOGGPGSSMXGL 120
Qy 121 FVEHGPVVTNSMTLRDRDPFWTTTSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
Db 121 FVEHGPVVTNSMTLRDRDPFWTTTSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180

```


APPLICANT: Filvaroff, Ellen
APPLICANT: Fong, Sherman
APPLICANT: Gao, Wei-Qiang
APPLICANT: Gerber, Hanspeter
APPLICANT: Gerritsen, Mary E.
APPLICANT: Goddard, A.
APPLICANT: Godowski, Paul J.
APPLICANT: Grimaldi, Christopher J.
APPLICANT: Gurney, Austin L.
APPLICANT: Hillan, Kenneth, J.
APPLICANT: Kljavin, Ivar J.
APPLICANT: Mather, Jennie P.
APPLICANT: Pan, James
APPLICANT: Paoni, Nicholas F.
APPLICANT: Roy, Margaret Ann
APPLICANT: Stewart, Daniel
APPLICANT: Tumas, Daniel
APPLICANT: Williams, P. Mickey
APPLICANT: Wood, William, I.
TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
TITLE OF INVENTION: Acids Encoding the Same
FILE REFERENCE: 10466-14
CURRENT APPLICATION NUMBER: US/09/907,824
CURRENT FILING DATE: 2001-07-17
PRIOR APPLICATION NUMBER: 09/665,350
PRIOR FILING DATE: 2000-09-18
PRIOR APPLICATION NUMBER: PCT/US00/04414
PRIOR FILING DATE: 2000-02-22
PRIOR APPLICATION NUMBER: US 60/143,048
PRIOR FILING DATE: 1999-07-07
PRIOR APPLICATION NUMBER: US 60/145,698
PRIOR FILING DATE: 1999-07-26
PRIOR APPLICATION NUMBER: US 60/146,222
PRIOR FILING DATE: 1999-07-28
PRIOR APPLICATION NUMBER: PCT/US99/20594
PRIOR FILING DATE: 1999-09-08
PRIOR APPLICATION NUMBER: PCT/US99/20944
PRIOR FILING DATE: 1999-09-13
PRIOR APPLICATION NUMBER: PCT/US99/21090
PRIOR FILING DATE: 1999-09-15
PRIOR APPLICATION NUMBER: PCT/US99/21547
PRIOR FILING DATE: 1999-09-15
PRIOR APPLICATION NUMBER: PCT/US99/23089
PRIOR FILING DATE: 1999-10-05
PRIOR APPLICATION NUMBER: PCT/US99/28214
PRIOR FILING DATE: 1999-11-29
PRIOR APPLICATION NUMBER: PCT/US99/28313
PRIOR FILING DATE: 1999-11-30
PRIOR APPLICATION NUMBER: PCT/US99/28564
PRIOR FILING DATE: 1999-12-02
PRIOR APPLICATION NUMBER: PCT/US99/28565
PRIOR FILING DATE: 1999-12-02
PRIOR APPLICATION NUMBER: PCT/US99/30095
PRIOR FILING DATE: 1999-12-16
PRIOR APPLICATION NUMBER: PCT/US99/30911
PRIOR FILING DATE: 1999-12-20
PRIOR APPLICATION NUMBER: PCT/US99/30999
PRIOR FILING DATE: 1999-12-20
PRIOR APPLICATION NUMBER: PCT/US00/00219
PRIOR FILING DATE: 2000-01-05
NUMBER OF SEQ ID NOS: 423
SEQ ID NO 164
LENGTH: 476
TYPE: PRT
ORGANISM: Homo Sapien
US-09-907-824-164

RESULT 8

US-09-907-841-164
; Sequence 164, Application US/09907841
; Publication No. US20020198366A1
; GENERAL INFORMATION:
; APPLICANT: Genentech, Inc.
; APPLICANT: Ashkenazi, Avi
; APPLICANT: Botstein, David
; APPLICANT: Desnoyers, Luc
; APPLICANT: Eaton, Dan L.
; APPLICANT: Ferrara, Napoleone
; APPLICANT: Filvaroff, Ellen
; APPLICANT: Fong, Sherman
; APPLICANT: Gao, Wei-Qiang
; APPLICANT: Gerber, Hanspeter
; APPLICANT: Gerritsen, Mary E.
; APPLICANT: Goddard, A.
; APPLICANT: Godowski, Paul J.
; APPLICANT: Grimaldi, Christopher J.
; APPLICANT: Gurney, Austin L.
; APPLICANT: Hillan, Kenneth, J.
; APPLICANT: Kljavin, Ivar J.
; APPLICANT: Mather, Jennie P.
; APPLICANT: Pan, James
; APPLICANT: Paoni, Nicholas F.
; APPLICANT: Roy, Margaret Ann
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Williams, P. Mickey
; APPLICANT: Wood, William, I.
; TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
; FILE REFERENCE: 10466-14
; CURRENT APPLICATION NUMBER: US/09/907,841
; CURRENT FILING DATE: 2001-11-20
; PRIOR APPLICATION NUMBER: PCT/US00/04414
; PRIOR FILING DATE: 2000-02-22
; PRIOR APPLICATION NUMBER: US 60/143,048
; PRIOR FILING DATE: 1999-07-07
; PRIOR APPLICATION NUMBER: US 60/145,698
; PRIOR FILING DATE: 1999-07-26
; PRIOR APPLICATION NUMBER: US 60/146,222

Query Match 99.4%; Score 2538; DB 10; Length 476;
Best Local Similarity 99.2%; Pred. No. 2.8e-237;
Matches 472; Conservative 0; Mismatches 4; Indels 0; Gaps 0;
Qy 1 MVGAMKVIIVSLVLLMPGCDGLFRSLYRSVSMPPKGDGSGQPLFLTPYIEAGKIQKREL 60
|||||

```
/ PRIOR FILING DATE: 1999-07-28
/ PRIOR APPLICATION NUMBER: PCT/US99/20594
/ PRIOR FILING DATE: 1999-09-08
/ PRIOR APPLICATION NUMBER: PCT/US99/20944
/ PRIOR FILING DATE: 1999-09-13
/ PRIOR APPLICATION NUMBER: PCT/US99/21090
/ PRIOR FILING DATE: 1999-09-15
/ PRIOR APPLICATION NUMBER: PCT/US99/21547
/ PRIOR FILING DATE: 1999-09-15
/ PRIOR APPLICATION NUMBER: PCT/US99/23089
/ PRIOR FILING DATE: 1999-10-05
/ PRIOR APPLICATION NUMBER: PCT/US99/28214
/ PRIOR FILING DATE: 1999-11-29
/ Remaining Prior Application data removed - See File Wrapper or PALM.
/ NUMBER OF SEQ ID NOS: 423
/ SEQ ID NO 164
/ LENGTH: 476
/ TYPE: PRT
/ ORGANISM: Homo sapiens
US-09-907-841-164

Query Match          99.4%; Score 2538; DB 10; Length 476;
Best Local Similarity 99.2%; Pred. No. 2.8e-237;
Matches 472; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

QY 1 MVGAMWKVIVSLVLLMPGCDGLFHSLYRSVSMPPKGDGQPLFLTPYIEAGKIQKREL 60
Db 1 MVGAMWKVIVSLVLLMPGCDGLFHSLYRSVSMPPKGDGQPLFLTPYIEAGKIQKREL 60

QY 61 SLVGPPFGLNMKSYAGFLTVNKTYSNLFVFWFFPAQIQPEDAPVVLWLOGGPGSSMXGL 120
Db 61 SLVGPPFGLNMKSYAGFLTVNKTYSNLFVFWFFPAQIQPEDAPVVLWLOGGPGSSMXGL 120

QY 121 FVEHGPVVTNSMTLRDRDPWTTTSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
Db 121 FVEHGPVVTNSMTLRDRDPWTTTSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180

QY 181 SALIQFQIPPEYKNNDFYVTGESYAGKYVPAIAHLHLSNPVREVKNINLNGIAIGDGY 240
Db 181 SALIQFQIPPEYKNNDFYVTGESYAGKYVPAIAHLHLSNPVREVKNINLNGIAIGDGY 240

QY 241 DPESIIIGGYAEFLYQIGLDEKOKYFQKQCHIEHIRKQNFPEAFIILDKLLDGLTS 300
Db 241 DPESIIIGGYAEFLYQIGLDEKOKYFQKQCHIEHIRKQNFPEAFIILDKLLDGLTS 300

QY 301 DPSYFQVNTGCSNYNFLRTEPEDQLYYVKFLSLPEVROAIHVGNOTFNDGTIVEKYL 360
Db 301 DPSYFQVNTGCSNYNFLRTEPEDQLYYVKFLSLPEVROAIHVGNOTFNDGTIVEKYL 360

QY 361 EDTVQSVKPLTEIMNNKYVLIYNGQLDIIIVAAALTERSLMGMDWKGSQYKKAQKVK 420
Db 361 EDTVQSVKPLTEIMNNKYVLIYNGQLDIIIVAAALTERSLMGMDWKGSQYKKAQKVK 420

QY 421 IFKSDSEVAGYIRQVGFHVIIRGGHIIIPYQOPRAFMINRFYKGGWDPIYG 476
Db 421 IFKSDSEVAGYIRQVGFHVIIRGGHIIIPYQOPRAFMINRFYKGGWDPIYG 476
```

RESULT 9

```
US-09-904-011-164
/ Sequence 164, Application US/09904011
/ Publication No. US20030003530A1
/ GENERAL INFORMATION:
/ APPLICANT: Genentech, Inc.
/ APPLICANT: Ashkenazi, Avi
/ APPLICANT: Botstein, David
/ APPLICANT: Desnoyers, Luc
/ APPLICANT: Eaton, Dan L.
/ APPLICANT: Ferrara, Napoleone
/ APPLICANT: Filvaroff, Ellen
/ APPLICANT: Fong, Sherman
/ APPLICANT: Gao, Wei-Qiang
/ APPLICANT: Gerber, Hanspeter
```

```
/ APPLICANT: Gerritsen, Mary E.
/ APPLICANT: Goddard, A.
/ APPLICANT: Godowski, Paul J.
/ APPLICANT: Grimaldi, Christopher J.
/ APPLICANT: Gurney, Austin L.
/ APPLICANT: Hillan, Kenneth, J.
/ APPLICANT: Kljavin, Ivar J.
/ APPLICANT: Mather, Jennie P.
/ APPLICANT: Pan, James
/ APPLICANT: Paoni, Nicholas F.
/ APPLICANT: Roy, Margaret Ann
/ APPLICANT: Stewart, Timothy A.
/ APPLICANT: Tumas, Daniel
/ APPLICANT: Williams, P. Mickey
/ APPLICANT: Wood, William, I.
/ TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
/ FILE REFERENCE: 10466-14
/ CURRENT APPLICATION NUMBER: US/09/904,011
/ PRIOR FILING DATE: 2001-07-11
/ PRIOR APPLICATION NUMBER: 09/665,350
/ PRIOR FILING DATE: 2000-09-18
/ PRIOR APPLICATION NUMBER: PCT/US00/04414
/ PRIOR FILING DATE: 2000-02-22
/ PRIOR APPLICATION NUMBER: US 60/143,048
/ PRIOR FILING DATE: 1999-07-07
/ PRIOR APPLICATION NUMBER: US 60/145,698
/ PRIOR FILING DATE: 1999-07-26
/ PRIOR APPLICATION NUMBER: US 60/146,222
/ PRIOR FILING DATE: 1999-07-28
/ PRIOR APPLICATION NUMBER: PCT/US99/20594
/ PRIOR FILING DATE: 1999-09-08
/ PRIOR APPLICATION NUMBER: PCT/US99/20944
/ PRIOR FILING DATE: 1999-09-13
/ PRIOR APPLICATION NUMBER: PCT/US99/21090
/ PRIOR FILING DATE: 1999-09-15
/ PRIOR APPLICATION NUMBER: PCT/US99/21547
/ PRIOR FILING DATE: 1999-09-15
/ PRIOR APPLICATION NUMBER: PCT/US99/23089
/ PRIOR FILING DATE: 1999-10-05
/ PRIOR APPLICATION NUMBER: PCT/US99/28214
/ PRIOR FILING DATE: 1999-11-29
/ PRIOR APPLICATION NUMBER: PCT/US99/28313
/ PRIOR FILING DATE: 1999-11-30
/ PRIOR APPLICATION NUMBER: PCT/US99/28564
/ PRIOR FILING DATE: 1999-12-02
/ PRIOR APPLICATION NUMBER: PCT/US99/28565
/ PRIOR FILING DATE: 1999-12-02
/ PRIOR APPLICATION NUMBER: PCT/US99/30095
/ PRIOR FILING DATE: 1999-12-16
/ PRIOR APPLICATION NUMBER: PCT/US99/30911
/ PRIOR FILING DATE: 1999-12-20
/ PRIOR APPLICATION NUMBER: PCT/US99/30999
/ PRIOR FILING DATE: 1999-12-20
/ PRIOR APPLICATION NUMBER: PCT/US00/00219
/ PRIOR FILING DATE: 2000-01-05
/ NUMBER OF SEQ ID NOS: 423
/ SEQ ID NO 164
/ LENGTH: 476
/ TYPE: PRT
/ ORGANISM: Homo Sapien
US-09-904-011-164
```

Query Match 99.4%; Score 2538; DB 11; Length 476;

Best Local Similarity 99.2%; Pred. No. 2.8e-237; Matches 472; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

```
QY 1 MVGAMWKVIVSLVLLMPGCDGLFHSLYRSVSMPPKGDGQPLFLTPYIEAGKIQKREL 60
Db 1 MVGAMWKVIVSLVLLMPGCDGLFHSLYRSVSMPPKGDGQPLFLTPYIEAGKIQKREL 60
QY 61 SLVGPPFGLNMKSYAGFLTVNKTYSNLFVFWFFPAQIQPEDAPVVLWLOGGPGSSMXGL 120
```


Db 61 SLVGPFPGLNKMKS YAGFLTVNKTYSNLF FWFPPAQIQPEDAPVVLWLQGGPGGSSMFL 120
Qy 121 FVEHGPVYVTSNMTLRDRDPFWTTXSMLYIDNPVGTGFSFTDTHGYAVNEDDVARDLY 180
Db 121 FVEHGPVYVTSNMTLRDRDPFWTTXSMLYIDNPVGTGFSFTDTHGYAVNEDDVARDLY 180
Qy 181 SALIOFFQIIFPEYKNDPVYVTSYAGKYVPATAHLHSLNPVREVKNLNGTAIGDYS 240
Db 181 SALIOFFQIIFPEYKNDPVYVTSYAGKYVPATAHLHSLNPVREVKNLNGTAIGDYS 240
Qy 241 DPESIIGGYAEFLYQIGLLDEKQKYYFQKQCHECHIEHIRKQNWFEAFIILDKLLDGLTS 300
Db 241 DPESIIGGYAEFLYQIGLLDEKQKYYFQKQCHECHIEHIRKQNWFEAFIILDKLLDGLTS 300
Qy 301 DPSYFQNTGCSNYSNLYNLRCTEPEDQLYYVKFSLPEVROAIHVGNQTFNDGTIVEKYL 360
Db 301 DPSYFQNTGCSNYSNLYNLRCTEPEDQLYYVKFSLPEVROAIHVGNQTFNDGTIVEKYL 360
Qy 361 EDTVQSVKPLWTEIMNYSKVLINGQLDIIVAAALTEHSLMGMWKGSGQYKKAQKVK 420
Db 361 EDTVQSVKPLWTEIMNYSKVLINGQLDIIVAAALTEHSLMGMWKGSGQYKKAQKVK 420
Qy 421 IFKSDSEVAGYIRQAGDFHQVIRGGHILPYDQPLRAFDMINRFYKGMWDPYVG 476
Db 421 IFKSDSEVAGYIRQAGDFHQVIRGGHILPYDQPLRAFDMINRFYKGMWDPYVG 476

RESULT 10

US-09-906-742-164
; Sequence 164, Application US/09906742
; Publication No. US20030023054A1

GENERAL INFORMATION:

; APPLICANT: Genentech, Inc.
; APPLICANT: Ashkenazi, Avi
; APPLICANT: Botstein, David
; APPLICANT: Desnoyers, Luc
; APPLICANT: Eaton, Dan L.
; APPLICANT: Ferrara, Napoleone
; APPLICANT: Flvaroff, Ellen
; APPLICANT: Fong, Sherman
; APPLICANT: Gao, Wei-Qiang
; APPLICANT: Gerber, Hanspeter
; APPLICANT: Gerritsen, Mary E.
; APPLICANT: Goddard, A.
; APPLICANT: Godowski, Paul J.
; APPLICANT: Grimaldi, Christopher J.
; APPLICANT: Gurney, Austin L.
; APPLICANT: Hillan, Kenneth, J.
; APPLICANT: Kijavlin, Ivar J.
; APPLICANT: Mather, Jennie P.
; APPLICANT: Pan, James
; APPLICANT: Paoni, Nicholas F.
; APPLICANT: Roy, Margaret Ann
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Williams, P. Mickey
; APPLICANT: Wood, William, I.
; TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
; FILE REFERENCE: 10466-14
; CURRENT APPLICATION NUMBER: US/09/906,742
; CURRENT FILING DATE: 2001-07-16
; PRIOR APPLICATION NUMBER: 09/665,350
; PRIOR FILING DATE: 2000-09-18
; PRIOR APPLICATION NUMBER: PCT/US00/04414
; PRIOR FILING DATE: 2000-02-22
; PRIOR APPLICATION NUMBER: US 60/143,048
; PRIOR FILING DATE: 1999-07-07
; PRIOR APPLICATION NUMBER: US 60/145,698
; PRIOR FILING DATE: 1999-07-26
; PRIOR APPLICATION NUMBER: US 60/146,222
; PRIOR FILING DATE: 1999-07-28
; PRIOR APPLICATION NUMBER: PCT/US99/20594

; PRIOR FILING DATE: 1999-09-08
; PRIOR APPLICATION NUMBER: PCT/US99/20944
; PRIOR FILING DATE: 1999-09-13
; PRIOR APPLICATION NUMBER: PCT/US99/21090
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/21547
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/23089
; PRIOR FILING DATE: 1999-10-05
; PRIOR APPLICATION NUMBER: PCT/US99/28214
; PRIOR FILING DATE: 1999-11-29
; PRIOR APPLICATION NUMBER: PCT/US99/28313
; PRIOR FILING DATE: 1999-11-30
; PRIOR APPLICATION NUMBER: PCT/US99/28564
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/28565
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/30095
; PRIOR FILING DATE: 1999-12-16
; PRIOR APPLICATION NUMBER: PCT/US99/30911
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US99/30999
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US00/00219
; PRIOR FILING DATE: 2000-01-05
; NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 164
; LENGTH: 476
; TYPE: PRT
; ORGANISM: Homo Sapien
US-09-906-742-164

Query Match 99.4%; Score 2538; DB 11; Length 476;

Best Local Similarity 99.2%; Pred. No. 2.8e-237;

Matches 472; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 1 MVGAMWKVTVSLVLLMPGCDGLPHSLYRSVSMPPKSGDGLFLTPYIEAGKIOKREL 60
Db 1 MVGAMWKVTVSLVLLMPGCDGLFRSLYRSVSMPPKSGDGLFLTPYIEAGKIOKREL 60
Qy 61 SLVGPPFGLNKMKS YAGFLTVNKTYSNLF FWFPPAQIQPEDAPVVLWLQGGPGGSSMAGL 120
Db 61 SLVGPPFGLNKMKS YAGFLTVNKTYSNLF FWFPPAQIQPEDAPVVLWLQGGPGGSSMAGL 120
Qy 121 FVEHGPVYVTSNMTLRDRDPFWTTXSMLYIDNPVGTGFSFTDTHGYAVNEDDVARDLY 180
Db 121 FVEHGPVYVTSNMTLRDRDPFWTTXSMLYIDNPVGTGFSFTDTHGYAVNEDDVARDLY 180
Qy 181 SALIOFFQIIFPEYKNDPVYVTSYAGKYVPATAHLHSLNPVREVKNLNGTAIGDYS 240
Db 181 SALIOFFQIIFPEYKNDPVYVTSYAGKYVPATAHLHSLNPVREVKNLNGTAIGDYS 240
Qy 241 DPESIIGGYAEFLYQIGLLDEKQKYYFQKQCHECHIEHIRKQNWFEAFIILDKLLDGLTS 300
Db 241 DPESIIGGYAEFLYQIGLLDEKQKYYFQKQCHECHIEHIRKQNWFEAFIILDKLLDGLTS 300
Qy 301 DPSYFQNTGCSNYSNLYNLRCTEPEDQLYYVKFSLPEVROAIHVGNQTFNDGTIVEKYL 360
Db 301 DPSYFQNTGCSNYSNLYNLRCTEPEDQLYYVKFSLPEVROAIHVGNQTFNDGTIVEKYL 360
Qy 361 EDTVQSVKPLWTEIMNYSKVLINGQLDIIVAAALTEHSLMGMWKGSGQYKKAQKVK 420
Db 361 EDTVQSVKPLWTEIMNYSKVLINGQLDIIVAAALTEHSLMGMWKGSGQYKKAQKVK 420
Qy 421 IFKSDSEVAGYIRQAGDFHQVIRGGHILPYDQPLRAFDMINRFYKGMWDPYVG 476
Db 421 IFKSDSEVAGYIRQAGDFHQVIRGGHILPYDQPLRAFDMINRFYKGMWDPYVG 476

RESULT 11

US-09-906-838-164
; Sequence 164, Application US/09906838
; Publication No. US20030027143A1

GENERAL INFORMATION:
; APPLICANT: Genentech, Inc.
; APPLICANT: Ashkenazi, Avi
; APPLICANT: Botstein, David
; APPLICANT: Desnoyers, Luc
; APPLICANT: Eaton, Dan L.
; APPLICANT: Ferrara, Napoleone
; APPLICANT: Filvaroff, Ellen
; APPLICANT: Fong, Sherman
; APPLICANT: Gao, Wei-Qiang
; APPLICANT: Gerber, Hanspeter
; APPLICANT: Gerritsen, Mary E.
; APPLICANT: Goddard, A.
; APPLICANT: Godowski, Paul J.
; APPLICANT: Grimaldi, Christopher J.
; APPLICANT: Gurney, Austin L.
; APPLICANT: Hillan, Kenneth, J.
; APPLICANT: Kljavin, Ivar J.
; APPLICANT: Mather, Jennie P.
; APPLICANT: Pan, James
; APPLICANT: Paoni, Nicholas F.
; APPLICANT: Roy, Margaret Ann
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Williams, P. Mickey
; APPLICANT: Wood, William, I.
; TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
; TITLE OF INVENTION: Acids Encoding the Same
; FILE REFERENCE: 10466-14
; CURRENT APPLICATION NUMBER: US/09/906,838
; CURRENT FILING DATE: 2001-07-16
; PRIOR APPLICATION NUMBER: 09/665,350
; PRIOR FILING DATE: 2000-09-18
; PRIOR APPLICATION NUMBER: PCT/US00/04414
; PRIOR FILING DATE: 2000-02-22
; PRIOR APPLICATION NUMBER: US 60/143,048
; PRIOR FILING DATE: 1999-07-07
; PRIOR APPLICATION NUMBER: US 60/145,698
; PRIOR FILING DATE: 1999-07-26
; PRIOR APPLICATION NUMBER: US 60/146,222
; PRIOR FILING DATE: 1999-07-28
; PRIOR APPLICATION NUMBER: PCT/US99/20594
; PRIOR FILING DATE: 1999-09-08
; PRIOR APPLICATION NUMBER: PCT/US99/20944
; PRIOR FILING DATE: 1999-09-13
; PRIOR APPLICATION NUMBER: PCT/US99/21090
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/21547
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/23089
; PRIOR FILING DATE: 1999-10-05
; PRIOR APPLICATION NUMBER: PCT/US99/28214
; PRIOR FILING DATE: 1999-11-29
; PRIOR APPLICATION NUMBER: PCT/US99/28313
; PRIOR FILING DATE: 1999-11-30
; PRIOR APPLICATION NUMBER: PCT/US99/28564
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/28565
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/30095
; PRIOR FILING DATE: 1999-12-16
; PRIOR APPLICATION NUMBER: PCT/US99/30911
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US99/30999
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US00/00219
; PRIOR FILING DATE: 2000-01-05
; NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 164
; LENGTH: 476
; TYPE: PRT
; ORGANISM: Homo Sapien
US-09-906-838-164

Query Match 99.4%; Score 2538; DB 11; Length 476;
Best Local Similarity 99.2%; Pred. No. 2.8e-237;
Matches 472; Conservative 0; Mismatches 4; Indels 0; Gaps 0;
QY 1 MYGAMKUIVSLVLLMPGCDGLFSLYRSYSMPPKSGDQPLFLTPYIEAGKIQKREL 60
DB 1 MYGAMKUIVSLVLLMPGCDGLFSLYRSYSMPPKSGDQPLFLTPYIEAGKIQKREL 60
QY 61 SLVGPPFGLNPKSYAGFLTVNKTYSNLFNFFPFAQIQPEDAPVVLWLGQGGSGSMAGL 120
DB 61 SLVGPPFGLNPKSYAGFLTVNKTYSNLFNFFPFAQIQPEDAPVVLWLGQGGSGSMAGL 120
QY 121 FVEHGPYVVTSMNLTDRDPFWTTTYSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
DB 121 FVEHGPYVVTSMNLTDRDPFWTTTYSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
QY 181 SALIQFQIFPEYKNDYFVTGESYAGKYVPAIAHLIHSLNPRVKINLNGIAIGDGY 240
DB 181 SALIQFQIFPEYKNDYFVTGESYAGKYVPAIAHLIHSLNPRVKINLNGIAIGDGY 240
QY 241 DPESIIGGYAEFLYQIGLLDEKQKXFKQCHCEHIEHIRKQNWFEAFELDKLDDGLTS 300
DB 241 DPESIIGGYAEFLYQIGLLDEKQKXFKQCHCEHIEHIRKQNWFEAFELDKLDDGLTS 300
QY 301 DPSYFQNTVGTCSNYYNFLRCTEPEDQLYVVKFSLPEVRQAIVHGNQTFNDGTIVEKYLR 360
DB 301 DPSYFQNTVGTCSNYYNFLRCTEPEDQLYVVKFSLPEVRQAIVHGNQTFNDGTIVEKYLR 360
QY 361 EDTQSVKPKWLTETIMNNYKVLINYGOLDIIIVAAALTSRLMGMDWKSGOEYKKAKKVWK 420
DB 361 EDTQSVKPKWLTETIMNNYKVLINYGOLDIIIVAAALTSRLMGMDWKSGOEYKKAKKVWK 420
QY 421 IFKSDSEVAGYIRQVGFHQVIRGGHILPYDQPLRAFDMINRRIYKGMDDPYVG 476
DB 421 IFKSDSEVAGYIRQVGFHQVIRGGHILPYDQPLRAFDMINRRIYKGMDDPYVG 476

RESULT 12
US-09-907-613-164
; Sequence 164, Application US/09907613
; Publication No. US20030027145A1
; GENERAL INFORMATION:
; APPLICANT: Genentech, Inc.
; APPLICANT: Ashkenazi, Avi
; APPLICANT: Botstein, David
; APPLICANT: Desnoyers, Luc
; APPLICANT: Eaton, Dan L.
; APPLICANT: Ferrara, Napoleone
; APPLICANT: Filvaroff, Ellen
; APPLICANT: Fong, Sherman
; APPLICANT: Gao, Wei-Qiang
; APPLICANT: Gerber, Hanspeter
; APPLICANT: Gerritsen, Mary E.
; APPLICANT: Goddard, A.
; APPLICANT: Godowski, Paul J.
; APPLICANT: Grimaldi, Christopher J.
; APPLICANT: Gurney, Austin L.
; APPLICANT: Hillan, Kenneth, J.
; APPLICANT: Kljavin, Ivar J.
; APPLICANT: Mather, Jennie P.
; APPLICANT: Pan, James
; APPLICANT: Paoni, Nicholas F.
; APPLICANT: Roy, Margaret Ann
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Williams, P. Mickey
; APPLICANT: Wood, William, I.
; TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
; TITLE OF INVENTION: Acids Encoding the Same
; FILE REFERENCE: 10466-14
; CURRENT APPLICATION NUMBER: US/09/907,613
; CURRENT FILING DATE: 2001-07-17

```
; PRIOR APPLICATION NUMBER: PCT/US00/04414
; PRIOR FILING DATE: 2000-02-22
; PRIOR APPLICATION NUMBER: US 60/143,048
; PRIOR FILING DATE: 1999-07-07
; PRIOR APPLICATION NUMBER: US 60/145,698
; PRIOR FILING DATE: 1999-07-26
; PRIOR APPLICATION NUMBER: US 60/146,222
; PRIOR FILING DATE: 1999-07-28
; PRIOR APPLICATION NUMBER: PCT/US99/20594
; PRIOR FILING DATE: 1999-09-08
; PRIOR APPLICATION NUMBER: PCT/US99/20944
; PRIOR FILING DATE: 1999-09-13
; PRIOR APPLICATION NUMBER: PCT/US99/21090
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/21547
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/23089
; PRIOR FILING DATE: 1999-10-05
; PRIOR APPLICATION NUMBER: PCT/US99/28214
; PRIOR FILING DATE: 1999-11-29
; PRIOR APPLICATION NUMBER: PCT/US99/28313
; PRIOR FILING DATE: 1999-11-30
; PRIOR APPLICATION NUMBER: PCT/US99/28564
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/28565
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/30095
; PRIOR FILING DATE: 1999-12-16
; PRIOR APPLICATION NUMBER: PCT/US99/30911
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US00/00219
; PRIOR FILING DATE: 2000-01-05
; NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 164
; LENGTH: 476
; TYPE: PRT
; ORGANISM: Homo sapiens
; US-09-907-613-164

Query Match          99.4%; Score 2538; DB 11; Length 476;
Best Local Similarity 99.2%; Pred. No. 2.8e-237;
Matches 472; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

QY      1  MVGAMKVIIVSLVLLMPGCDGLFHSLSYRSVSMPPKGDSCQPLFLTPYIEAGKIQKREL 60
Db      1  MVGAMKVIIVSLVLLMPGCDGLFHSLSYRSVSMPPKGDSCQPLFLTPYIEAGKIQKREL 60
QY      61  SLVGPPFGLNKS VAGFLTVNKTYSNLFNFWFFPAQIQPEDAPVWLWLGPGGSSMXGL 120
Db      61  SLVGPPFGLNKS VAGFLTVNKTYSNLFNFWFFPAQIQPEDAPVWLWLGPGGSSMXGL 120
QY      121  FVEHGPVYVTSNMTLRDRDPFWTTXSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
Db      121  FVEHGPVYVTSNMTLRDRDPFWTTXSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
QY      181  SALIQFQIPEYKNDPFTYTGSGYAGKYVPAIAHLIHSNPNREVKNINLNGAIGDGY 240
Db      181  SALIQFQIPEYKNDPFTYTGSGYAGKYVPAIAHLIHSNPNREVKNINLNGAIGDGY 240
QY      241  DPESIIIGYAEFLYQIGLLDEKOKKYFKOCHECIEHRIKONNFEAIEILDLDGDLTS 300
Db      241  DPESIIIGYAEFLYQIGLLDEKOKKYFKOCHECIEHRIKONNFEAIEILDLDGDLTS 300
QY      301  DPSYFQNVTCGSNYNFRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYL 360
Db      301  DPSYFQNVTCGSNYNFRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYL 360
QY      361  EDTVQSVKPNLTIEMNNYKVLINQDLDIIIVAAALTERSLMGMDWKGQSYKKAEEKVK 420
Db      361  EDTVQSVKPNLTIEMNNYKVLINQDLDIIIVAAALTERSLMGMDWKGQSYKKAEEKVK 420

; 421  IFKSDSEVAGYIRQVDFHQTIVIRGGCHILPYDQPLRAFDMINRRIYKGGWDPYVG 476
; 421  IFKSDSEVAGYIRQAGDFHQVIRGGCHILPYDQPLRAFDMINRRIYKGGWDPYVG 476

RESULT 13
US-09-907-942-164
; Sequence 164, Application US/09907942
; Publication NO. US20030027146A1
; GENERAL INFORMATION:
; APPLICANT: Genentech, Inc.
; APPLICANT: Ashkenazi, Avi
; APPLICANT: Botstein, David
; APPLICANT: Desnoyers, Luc
; APPLICANT: Eaton, Dan L.
; APPLICANT: Ferrara, Napoleone
; APPLICANT: Filvaroff, Ellen
; APPLICANT: Fong, Sherman
; APPLICANT: Gao, Wei-Qiang
; APPLICANT: Gerber, Hanspeter
; APPLICANT: Gerritsen, Mary E.
; APPLICANT: Goddard, A.
; APPLICANT: Godowski, Paul J.
; APPLICANT: Grimaldi, Christopher J.
; APPLICANT: Gurney, Austin L.
; APPLICANT: Hillan, Kenneth, J.
; APPLICANT: Kijavin, Ivar J.
; APPLICANT: Mather, Jennie P.
; APPLICANT: Pan, James
; APPLICANT: Paoni, Nicholas F.
; APPLICANT: Roy, Margaret Ann
; APPLICANT: Stewart, Timothy A.
; APPLICANT: Tumas, Daniel
; APPLICANT: Williams, P. Mickey
; APPLICANT: Wood, William, I.
; TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
; FILE REFERENCE: 10466-14
; CURRENT APPLICATION NUMBER: US/09/907,942
; CURRENT FILING DATE: 2002-01-22
; PRIOR APPLICATION NUMBER: PCT/US00/04414
; PRIOR FILING DATE: 2000-02-22
; PRIOR APPLICATION NUMBER: US 60/143,048
; PRIOR FILING DATE: 1999-07-07
; PRIOR APPLICATION NUMBER: US 60/145,698
; PRIOR FILING DATE: 1999-07-26
; PRIOR APPLICATION NUMBER: US 60/146,222
; PRIOR FILING DATE: 1999-07-28
; PRIOR APPLICATION NUMBER: PCT/US99/20594
; PRIOR FILING DATE: 1999-09-08
; PRIOR APPLICATION NUMBER: PCT/US99/20944
; PRIOR FILING DATE: 1999-09-13
; PRIOR APPLICATION NUMBER: PCT/US99/21090
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/21547
; PRIOR FILING DATE: 1999-09-15
; PRIOR APPLICATION NUMBER: PCT/US99/23089
; PRIOR FILING DATE: 1999-10-05
; PRIOR APPLICATION NUMBER: PCT/US99/28214
; PRIOR FILING DATE: 1999-11-29
; PRIOR APPLICATION NUMBER: PCT/US99/28313
; PRIOR FILING DATE: 1999-11-30
; PRIOR APPLICATION NUMBER: PCT/US99/28564
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/28565
; PRIOR FILING DATE: 1999-12-02
; PRIOR APPLICATION NUMBER: PCT/US99/30095
; PRIOR FILING DATE: 1999-12-16
; PRIOR APPLICATION NUMBER: PCT/US99/30911
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US99/30999
; PRIOR FILING DATE: 1999-12-20
; PRIOR APPLICATION NUMBER: PCT/US00/00219
```

```
; PRIOR FILING DATE: 2000-01-05
; NUMBER OF SEQ ID NOS: 423
; SEQ ID NO 164
; LENGTH: 476
; TYPE: PRT
; ORGANISM: Homo sapiens
; US-09-907-942-164

Query Match          99.4%; Score 2538; DB 11; Length 476;
Best Local Similarity 99.2%; Pred. No. 2.8e-237;
Matches 472; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

QY 1 MVGAMKVIIVSLVLLMPGCDGLFHSLYRSVSMPPKGDGQPLFLTPYIEAGKIQKREL 60
Db 1 MVGAMKVIIVSLVLLMPGCDGLFHSLYRSVSMPPKGDGQPLFLTPYIEAGKIQKREL 60
QY 61 SLVGPPFGLNPKSYAGFLTVNKTYSNLFFWFFPAQIQPEDAPVVLWLOGPGGSSMFL 120
Db 61 SLVGPPFGLNPKSYAGFLTVNKTYSNLFFWFFPAQIQPEDAPVVLWLOGPGGSSMFL 120
QY 121 FVEHGPVVTNNLTDRDPFWTTTXXSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
Db 121 FVEHGPVVTNNLTDRDPFWTTTXXSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
QY 181 SALIQFQIPPEYKNNDFYVTGSEYAGKYVPAIAHLIHSNLPVREVKINLNGIAIGDGY 240
Db 181 SALIQFQIPPEYKNNDFYVTGSEYAGKYVPAIAHLIHSNLPVREVKINLNGIAIGDGY 240
QY 241 DPESIIGGVAEFLYQIGLDEKOKKYFQKQCHIEHIRKQNNFEAFELDKLLDGLTS 300
Db 241 DPESIIGGVAEFLYQIGLDEKOKKYFQKQCHIEHIRKQNNFEAFELDKLLDGLTS 300
QY 301 DPSYFQNVTCGSNNYINFLRTEBEDQLYYVKFLSLPEVRQAIHVGNTFNDGTIVEKYL 360
Db 301 DPSYFQNVTCGSNNYINFLRTEBEDQLYYVKFLSLPEVRQAIHVGNTFNDGTIVEKYL 360
QY 361 EDTVQSVKPLTEIMNNYKVLINQGLDIIIVAAALTEFLMGMWKGQSYKAEKKVWK 420
Db 361 EDTVQSVKPLTEIMNNYKVLINQGLDIIIVAAALTEFLMGMWKGQSYKAEKKVWK 420
QY 421 IFKSDSEVAGYIRQAGDFHQVIRGGGHILPYDOPARAFDMINRFYKGMWDPYVG 476
Db 421 IFKSDSEVAGYIRQAGDFHQVIRGGGHILPYDOPARAFDMINRFYKGMWDPYVG 476

RESULT 14
US-09-796-753-40
; Sequence 40, Application US/09796753
; Publication No. US20030027998A1
; GENERAL INFORMATION:
; APPLICANT: McCarthy, Sean A.
; TITLE OF INVENTION: SECRETED PROTEINS AND USES THEREOF
; FILE REFERENCE: 7853-227-999
; CURRENT APPLICATION NUMBER: US/09/796,753
; CURRENT FILING DATE: 2001-03-01
; PRIOR APPLICATION NUMBER: 09/183,175
; PRIOR FILING DATE: 1998-10-30
; PRIOR APPLICATION NUMBER: 09/223,094
; PRIOR FILING DATE: 1998-12-30
; PRIOR APPLICATION NUMBER: 09/223,546
; PRIOR FILING DATE: 1998-12-30
; PRIOR APPLICATION NUMBER: 09/224,246
; PRIOR FILING DATE: 1998-12-30
; PRIOR APPLICATION NUMBER: 09/259,388
; PRIOR FILING DATE: 1999-02-26
; PRIOR APPLICATION NUMBER: 60/122,458
; PRIOR FILING DATE: 1999-03-01
; PRIOR APPLICATION NUMBER: 09/312,359
; PRIOR FILING DATE: 1999-05-14
; PRIOR APPLICATION NUMBER: 09/336,536
; PRIOR FILING DATE: 1999-06-18
; PRIOR APPLICATION NUMBER: 09/342,687
; PRIOR FILING DATE: 1999-06-29
```

```
; PRIOR APPLICATION NUMBER: 09/345,464
; PRIOR FILING DATE: 1999-06-30
; PRIOR APPLICATION NUMBER: 09/365,164
; PRIOR FILING DATE: 1999-07-30
; PRIOR APPLICATION NUMBER: 09/399,723
; PRIOR FILING DATE: 1999-09-20
; PRIOR APPLICATION NUMBER: 09/409,634
; PRIOR FILING DATE: 1999-09-30
; PRIOR APPLICATION NUMBER: 09/471,179
; PRIOR FILING DATE: 1999-12-23
; PRIOR APPLICATION NUMBER: 09/474,071
; PRIOR FILING DATE: 1999-12-29
; PRIOR APPLICATION NUMBER: 09/474,072
; PRIOR FILING DATE: 1999-12-29
; PRIOR APPLICATION NUMBER: 09/514,010
; PRIOR FILING DATE: 2000-02-25
; PRIOR APPLICATION NUMBER: 09/516,745
; PRIOR FILING DATE: 2000-03-01
; PRIOR APPLICATION NUMBER: 09/572,002
; PRIOR FILING DATE: 2000-05-14
; PRIOR APPLICATION NUMBER: 09/597,993
; PRIOR FILING DATE: 2000-06-19
; PRIOR APPLICATION NUMBER: 09/599,596
; PRIOR FILING DATE: 2000-06-22
; PRIOR APPLICATION NUMBER: 09/630,334
; PRIOR FILING DATE: 2000-07-31
; PRIOR APPLICATION NUMBER: 09/606,565
; PRIOR FILING DATE: 2000-06-29
; PRIOR APPLICATION NUMBER: 09/606,317
; PRIOR FILING DATE: 2000-06-29
; PRIOR APPLICATION NUMBER: 09/665,666
; PRIOR FILING DATE: 2000-09-20
; PRIOR APPLICATION NUMBER: 09/677,751
; PRIOR FILING DATE: 2000-09-30
; NUMBER OF SEQ ID NOS: 162
; SEQ ID NO 40
; LENGTH: 476
; TYPE: PRT
; ORGANISM: Homo sapiens
; US-09-796-753-40

Query Match          99.4%; Score 2538; DB 11; Length 476;
Best Local Similarity 99.2%; Pred. No. 2.8e-237;
Matches 472; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

QY 1 MVGAMKVIIVSLVLLMPGCDGLFHSLYRSVSMPPKGDGQPLFLTPYIEAGKIQKREL 60
Db 1 MVGAMKVIIVSLVLLMPGCDGLFHSLYRSVSMPPKGDGQPLFLTPYIEAGKIQKREL 60
QY 61 SLVGPPFGLNPKSYAGFLTVNKTYSNLFFWFFPAQIQPEDAPVVLWLOGPGGSSMFL 120
Db 61 SLVGPPFGLNPKSYAGFLTVNKTYSNLFFWFFPAQIQPEDAPVVLWLOGPGGSSMFL 120
QY 121 FVEHGPVVTNNLTDRDPFWTTTXXSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
Db 121 FVEHGPVVTNNLTDRDPFWTTTXXSMLYIDNPVGTGFSFTDDTHGYAVNEDDVARDLY 180
QY 181 SALIQFQIPPEYKNNDFYVTGSEYAGKYVPAIAHLIHSNLPVREVKINLNGIAIGDGY 240
Db 181 SALIQFQIPPEYKNNDFYVTGSEYAGKYVPAIAHLIHSNLPVREVKINLNGIAIGDGY 240
QY 241 DPESIIGGVAEFLYQIGLDEKOKKYFQKQCHIEHIRKQNNFEAFELDKLLDGLTS 300
Db 241 DPESIIGGVAEFLYQIGLDEKOKKYFQKQCHIEHIRKQNNFEAFELDKLLDGLTS 300
QY 301 DPSYFQNVTCGSNNYINFLRTEBEDQLYYVKFLSLPEVRQAIHVGNTFNDGTIVEKYL 360
Db 301 DPSYFQNVTCGSNNYINFLRTEBEDQLYYVKFLSLPEVRQAIHVGNTFNDGTIVEKYL 360
QY 361 EDTVQSVKPLTEIMNNYKVLINQGLDIIIVAAALTEFLMGMWKGQSYKAEKKVWK 420
Db 361 EDTVQSVKPLTEIMNNYKVLINQGLDIIIVAAALTEFLMGMWKGQSYKAEKKVWK 420
```


D86283

T15D22.4 protein - Arabidopsis thaliana
C:Species: Arabidopsis thaliana (mouse-ear cress)
C>Date: 02-Mar-2001 #sequence_revision 02-Mar-2001 #text_change 09-Nov-2001
C:Accession: D86283
R:Theologias, A.; Ecker, J.R.; Palm, C.J.; Federspiel, N.A.; Kaul, S.; White, O.; Alonso, Chin, C.W.; Chung, M.K.; Conn, L.; Conway, A.B.; Conway, A.R.; Creasy, T.H.; Dewar, K.; ansen, N.F.; Hughes, B.; Huizar, L.
Nature 408, 816-820, 2000
A:Authors: Hunter, J.L.; Jenkins, J.; Johnson-Hopson, C.; Khan, S.; Khaykin, E.; Kim, C.C.; Li, J.H.; Li, Y.; Lin, X.; Liu, S.X.; Liu, Z.A.; Luros, J.S.; Maiti, R.; Marziani, Rizzo, M.; Rooney, T.; Rowley, D.; Sakano, H.
A:Authors: Salzberg, S.L.; Schwartz, J.R.; Shinn, P.; Southwick, A.M.; Sun, H.; Tallon, ker, M.; Wu, D.; Yu, G.; Fraser, C.M.; Venter, J.C.; Davits, R.W.
A:Title: Sequence and analysis of chromosome 1 of the plant Arabidopsis.
A:Reference number: A86141; MUID:21016719; PMID:11130712
A:Accession: D86283
A>Status: preliminary
A:Molecule type: DNA
A:Residues: 1-444 <STO>
A:Cross-references: GB:AE005172; NID:g6899645; PIDN:AAF31022.1; GSPDB:GN00141
C:Genetics:
A:Map position: 1

Query Match 24.4%; Score 623.5; DB 2; Length 444;
Best Local Similarity 35.2%; Pred. No. 6.7e-39;
Matches 145; Conservative 74; Mismatches 172; Indels 21; Gaps 9;

```
QY 66 FGLNKKSYAGFLTVNKTYSNLFVFFPAQIQP-----EDAPVLMQGGPGSSMXGLF 121
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 28 FPDEALPTKSGYLPVKAPGSSMFYAFYEAQ-EPTPLPTPLTLLVLMQGGPGSSMIGNF 86
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :

QY 122 VEHGPPVVTNMTLRDRD-FPWTTXSMLYIDNPVCGFGSFTDDTHGYAVNEDDVARLDY 180
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 87 YELGPMRWVSRATDLERNPGAMNRLFGLLFVDNPIGVGFSIAASQDDIPNQRQVAEHL 146
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :

QY 181 SALIQFQIPEPKYNNDFYVTGSGYAGKYVPAIAHLIHSNLPVREKINLINGAIDGYS 240
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 147 AALVEFLEQNPSPENRPVYVTGSGYAGKYVPAIGYILKEKP--NGKVNKGLAINGL 204
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :

QY 241 DPSSIIGGYAEFLYQIGLLEKQKKYFQKOCHEICIEHIRKONNFEAFELDKLLDGLTS 300
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 205 DPVTQVQTHAVNVYISGLVNAKORVELQKAQAEISVALVSKQKREAADARTELL----- 258
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :

QY 301 DPYFQNVTCGSNYNPLRTEPEDQLYVYKFLSLPEVRQAIHVGNQT-FND-GTIVEKY 358
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 259 --TLLSNMTGLATLYNTARAIPRTDL-VVDLLNQREAKKVLGVSETVFEECSDVEDV 315
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :

QY 359 LREDTVQSVKPLWTEIMNNYKVIYNGQLDIIVAALATERSLMGMWKGQYKKAQKV 418
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 316 LRADVMKSVKFMVEYALERTQVLLYQGLDLRDGVVSTEEWMTKNWWSGLGMFSTAERV 375
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :

QY 419 WKLFKSDSEVAGYIRQVGDHVIIRGGHILPYDQPLRAFDMINRFYKKG 470
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 376 WK--DEDDGVVAGYVQRWGNLCHVAVTGAGHFVPTDKAVNSRDMIEGWVLGK 425
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
```

RESULT 3

S22530
carboxypeptidase C (EC 3.4.16.5) precursor - rice
N:Alternate names: carboxypeptidase III
C:Species: Oryza sativa (rice)
C>Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 24-Nov-1999
C:Accession: S22530
R:Washio, K.; Ishikawa, K.
Plant Mol. Biol. 19, 631-640, 1992
A:Title: Structure and expression during the germination of rice seeds of the gene for a
A:Reference number: S22530; MUID:92329723; PMID:1627776
A:Accession: S22530
A:Molecule type: DNA
A:Residues: 1-500 <WAS>
A:Cross-references: EMBL:S40458
C:Genetics:

A:Introns: 100/2; 156/3; 196/3; 244/3; 295/1; 324/3; 411/1; 455/3
C:Superfamily: serine carboxypeptidase
F:1-21/Domain: signal sequence #status predicted <SIG>
F:22-73/Domain: propeptide #status predicted <PRO>
F:74-484/Product: carboxypeptidase C #status predicted <MAT>
F:485-499/Domain: carboxyl-terminal propeptide #status predicted <CPRO>
F:144/Binding site: carbohydrtate (aen) (covalent) #status predicted
F:216,404,461/Active site: Ser, Asp, His #status predicted

Query Match 22.9%; Score 585.5; DB 1; Length 500;
Best Local Similarity 29.6%; Pred. No. 5.6e-36;
Matches 149; Conservative 103; Mismatches 195; Indels 57; Gaps 15;
QY 1 MYGAMKWKIVSLVLLMPGPC-DGL-----FHSLYRSVMPKP-----GDSG 40
 :
Db 1 MATARVSLILLVVLAASACAEGLRLPRDAKPPAAQAERLIRSLNLLPKAAGPTGAGD-- 58
 :

```
QY 41 QPLFLTPYIEAGKIQGRELSIVGPPGL-NMKSYAGFLTVNKTYSNLFVFFPAQIQP 99
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 59 -----VPSVAPGELLE-RRVTLPGLPQGVGLDGHGAYYRLPNTHDARMFYLFESRGKK 112
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :

QY 100 EDAPVLMQGGPGSSMXGLFVEHGPYVVTNMTLRDRDPFWTTXSMLYIDNPVGTGF 159
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 113 ED-PVVIWLTGPGCGSSELAIFYENGPTTISNNMSLAWNKFGWDTISNIIFVDQPTGTGF 171
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :

QY 160 SFTDDTHGYAVNEDDVARLDYSAIQFQIPEYKNNDFYVTGSGYAGKYVPAIAHLIHS 219
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 172 SYSSDDRRDTRHDETGVNDLSYFLQVFFKQHPPEAKNDFFITGESYAGHYIPAFASRVHQ 231
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :

QY 220 LNPVRE-VKINLINGAIDGYSDDPSIIGGYAEFLYQIGLLEKQKKYFQKOCHEICIEH 278
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 232 GNKANEHINLKGFAINGLTDPAIQYKAYTDALDNNLKSSDYDRINKPIPCCEPAI 291
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :

QY 279 R-----KONWFEAFELDKLLDGLTSDPSYFQNVTCGSNYNPLRTEPEDQLY--- 329
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 292 KLCGTNGKASCMAAVMVCSIP-----SSIMKLVGTYNYDVRK--ECSEGLCYDPS 341
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :

QY 330 --VKFLSLPEYRQAIHYGNQTF-NDGTIVEKVLREDTVQSVKPLWTEIM-NNYKVIYNG 385
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 342 NLEKFFGDKAKVEALGVGDLEFVSCSTTYQAMLTDWNRNLEVGIPALLEDDGINVLIVAG 401
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :

QY 386 QLDITVAALATERSLMGMWKGQYKKAQKVWIKFKSDSEVAGYIRQVGDHVIIRGG 445
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 402 EYDILLNGLNSRWVHSMESGQKDFVSSHESP---FVVDGAEAGVLSKHGSLFLKVHN 458
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :

QY 446 GGHILPYDQPLRAFDMINRFYKKG 469
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 459 AGHVMFMDQPKASLEMLRRFTQKG 482
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
```

RESULT 4

T48977
carboxypeptidase-like protein F14D17.80 [imported] - Arabidopsis thaliana
C:Species: Arabidopsis thaliana (mouse-ear cress)
C>Date: 02-Jun-2000 #sequence_revision 02-Jun-2000 #text_change 24-Oct-2000
C:Accession: T48977
R:Jordan, N.; Bangert, S.; Wiedelmann, R.; Voess, H.; Unseld, M.; Mewes, H.W.; Rudd, S.
submitted to the Protein Sequence Database, April 2000
A:Reference number: Z25008
A:Accession: T48977
A>Status: preliminary
A:Molecule type: DNA
A:Residues: 1-510 <JOR>
A:Cross-references: EMBL:AL353992; GSPDB:GN00061; ATSP:F14D17.80
A:Experimental source: cultivar Columbia; BAC clone F14D17
C:Genetics:

A:Map position: 3
A:Introns: 115/2; 171/3; 211/3; 259/3; 310/1; 341/3; 428/1; 472/3
C:Superfamily: serine carboxypeptidase
F:231,421,478/Active site: Ser, Asp, His #status predicted

GenCore version 5.1.6
Copyright (c) 1993 - 2003 Compugen Ltd.

OM protein - protein search, using sw model

Run on: November 7, 2003, 16:38:00 ; Search time 18 Seconds
(without alignments)
1243.595 Million cell updates/sec

Title: US-10-084-018-3

Perfect score: 2554

Sequence: 1 MVGAMWKVIVSLVLMGPGC.....RAFDMINRFYCKGWDPYVG 476

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 127863 seqs, 47026705 residues

Total number of hits satisfying chosen parameters: 127863

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : SwissProt_41.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	2527	98.9	476	1 CPVL HUMAN	Q9h3g5 homo sapien
2	1014	39.7	471	1 VCP_AEDAE	P42660 aedes aegypt
3	585.5	22.9	500	1 CBP3 ORISA	P37891 oryza sativ
4	576	22.6	508	1 CBP3 HORVU	P21529 hordeum vul
5	566.5	22.2	516	1 CBPX ARATH	P32826 arabidopsis
6	556	21.8	429	1 CBPX ORISA	P52712 oryza sativ
7	555.5	21.8	500	1 CBP3 WHEAT	P11515 triticum ae
8	555	21.7	480	1 PRTP HUMAN	P10619 homo sapien
9	536	21.0	474	1 PRTP MOUSE	P16675 mus musculus
10	491	19.2	454	1 YUA6 CAEL	P52715 caenorhabdi
11	489.5	19.2	542	1 CBPY CANAL	P30574 candida alb
12	481.5	18.9	516	1 CPB3 HORVU	P52711 hordeum vul
13	479.5	18.8	469	1 YUW5 CAEL	P52717 caenorhabdi
14	471	18.4	508	1 YBY9 YEAST	P38109 saccharomyc
15	455	17.8	1002	1 CBPY SCHPO	O13849 schizosacch
16	447.5	17.5	499	1 CBP1 HORVU	P07519 hordeum vul
17	446	17.5	482	1 NF31 NAEFO	P42661 naegleria f
18	442.5	17.3	523	1 CBPY PICPA	P52710 pichia past
19	432.5	16.9	510	1 CBP1 ORISA	P37890 oryza sativ
20	432	16.9	532	1 CBPY WHEAT	P00729 saccharomyc
21	428.5	16.8	423	1 CBP2 YEAST	P08819 triticum ae
22	426.5	16.7	436	1 CP22 HORVU	P55748 hordeum vul
23	425	16.6	452	1 RISC MOUSE	Q920a5 mus musculus
24	421.5	16.5	452	1 RISC RAT	Q920a6 rattus norv
25	413.5	16.2	476	1 CBP2 HORVU	P08818 hordeum vul
26	410	16.1	574	1 YPP3 CAEL	P52716 caenorhabdi
27	396	15.5	452	1 RISC HUMAN	Q9hb40 homo sapien
28	395	15.5	470	1 YSS2 CAEL	Q09391 caenorhabdi
29	379.5	14.9	423	1 CPS1 PENJA	P34946 penicillium
30	376	14.7	729	1 KEX1 YEAST	P09620 saccharomyc
31	346	13.5	505	1 YXD2 CAEL	P52714 caenorhabdi
32	330.5	12.9	523	1 PEP5 ASPSA	P52719 aspergillus
33	309.5	12.1	507	1 SXA2 SCHPO	P32825 schizosacch

RESULT 1

ID	CPVL HUMAN	STANDARD	PRT	476 AA
AC	Q9H3G5; Q9NBL7; Q9GAR7; Q9HB41;			
DT	28-FEB-2003 (Rel. 41, Created)			
DT	28-FEB-2003 (Rel. 41, Last sequence update)			
DT	15-SEP-2003 (Rel. 42, Last annotation update)			
DE	Probable serine carboxypeptidase CPVL precursor (EC 3.4.16.-)			
DE	(Carboxypeptidase, vitellogenic-like) (Vitellogenic carboxypeptidase-like protein) (VCP-like protein).			
OS	CPVL OR VLP.			
GN	Homo sapiens (Human)			
OC	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;			
OC	Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.			
OX	NCBI_TaxID=9606;			
RN	[1]			
RP	SEQUENCE FROM N.A.			
EX	MEDLINE=21295045; PubMed=11401439;			
RA	Mahtoney J.A., Ncolosi B., DaSilva R.P., Gordon S., McKnight A.J.;			
RT	"Cloning and characterization of CPVL, a novel serine carboxypeptidase, from human macrophages.";			
RL	Genomics 72:243-251(2001).			
RN	[2]			
RP	SEQUENCE FROM N.A.			
RA	Cho J.-J., Baik H.-H.;			
RT	"Cloning of VCP-like protein expressed in human heart and placenta.";			
RL	Submitted (JUN-2000) to the EMBL/GenBank/DBJ databases.			
RN	[3]			
RP	SEQUENCE FROM N.A.			
RC	TISSUE=Placenta;			
RA	Ota T., Nishikawa T., Suzuki Y., Kawai-Hio Y., Hayashi K., Ishii S.,			
RA	Saito K., Yamamoto J., Wakamatsu A., Nagai T., Nakamura Y.,			
RA	Nagahari K., Sugano S., Isogai T.;			
RT	"HRI human cDNA sequencing project.";			
RL	Submitted (MAR-2002) to the EMBL/GenBank/DBJ databases.			
RN	[4]			
RP	SEQUENCE FROM N.A.			
RC	TISSUE=Lung;			
RA	MEDLINE=2338257; PubMed=12477932;			
RA	Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,			
RA	Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,			
RA	Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,			
RA	Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,			
RA	Diatchenko L., Maruina K., Farmer A.A., Rubin G.M., Hong L.,			
RA	Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,			
RA	Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,			
RA	Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,			
RA	Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,			
RA	Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,			
RA	Villalón D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,			
RA	Fahey J., Helton E., Kettman M., Madan A., Rodrigues S., Sanchez A.,			
RA	Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,			
RA	Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,			
RA	Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,			
RA	Butterfield Y.S.N., Krzywinski M.I., Skalska U., Small D.E.,			
RA	Schmerch A., Schein J.E., Jones S.J.M., Marra M.A.;			

ALIGNMENTS

34	290	11.4	366	1	HNLS_SORBI	P52708 sorghum bic
35	288.5	11.3	531	1	PEPF_ASPNG	P52718 aspergillus
36	256	10.0	324	1	CP21_HORVU	P55747 hordeum vul
37	245	9.6	286	1	CBPX_PEA	Q41005 pisum sativ
38	116.5	4.6	456	1	TRPE_LACLA	Q02001 lactococcus
39	113	4.4	1516	1	MIS4_SCHPO	O94477 schizosacch
40	110.5	4.3	1048	1	SILA_SALTY	Q9zhc9 salmonella
41	104.5	4.1	576	1	T2BR_BACSU	P06529 bacillus su
42	103.5	4.1	1562	1	YM81_YEAST	Q04781 saccharomyc
43	100.5	3.9	547	1	SYM_THEAC	Q9hj12 thermoplasma
44	99.5	3.9	1217	1	YHCE_BACSU	P54602 bacillus su
45	99	3.9	259	1	CAH2_TRIHK	Q8uwa5 tribolodon

RT "Generation and initial analysis of more than 15,000 full-length
 RT human and mouse cDNA sequences",
 RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
 CC -!- FUNCTION: May be involved in the digestion of phagocytosed
 CC particles in the lysosome, participation in an inflammatory
 CC protease cascade, and trimming of peptides for antigen
 CC presentation.
 CC -!- TISSUE SPECIFICITY: Expressed in macrophages but not in other
 CC leukocytes. Abundantly expressed in heart and kidney. Also
 CC expressed in spleen, leukocytes, and placenta.
 CC -!- SIMILARITY: BELONGS TO PEPTIDASE FAMILY S10.
 CC -----
 CC This SWISS-PROT entry is copyright. It is produced through a collaboration
 CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
 CC the European Bioinformatics Institute. There are no restrictions on its
 CC use by non-profit institutions as long as its content is in no way
 CC modified and this statement is not removed. Usage by and for commercial
 CC entities requires a license agreement (See <http://www.isb-sib.ch/announce/>
 CC or send an email to license@isb-sib.ch).
 CC -----

DR EMBL; AF106704; AAG37991.2; -;
 DR EMBL; AF282617; AAG14348.1; -;
 DR EMBL; AK075433; BAC11618.1; -;
 DR EMBL; BC016838; AAI16838.1; -;
 DR HSSP; P10619; LIVV.
 DR MEROPS; S10.003; -;
 DR Genew; HGNC:14399; CPVL.
 DR InterPro; IPR000379; Ser_estr_site.
 DR InterPro; IPR001563; Serine_carbpept.
 DR Pfam; PF00450; serine_carbpept; 1.
 DR PRINTS; PR00724; CRBOXYPASEC.
 DR ProDom; PD001189; Serine_carbpept; 1.
 DR PROSITE; PS00131; CARBOXYPEPT_SER_SER; 1.
 DR PROSITE; PS00560; CARBOXYPEPT_SER_HIS; FALSE_NEG.
 KW Hydrolase; Carboxypeptidase; Glycoprotein; Zymogen; Signal.
 FT SIGNAL 1 22
 FT PROPEP 23 ? POTENTIAL.
 FT CHAIN ? 476 PROBABLE SERINE CARBOXYPEPTIDASE CPVL.
 FT ACT_SITE 204 204 BY SIMILARITY.
 FT ACT_SITE 388 388 BY SIMILARITY.
 FT ACT_SITE 448 448 BY SIMILARITY.
 FT CARBOHYD 81 81 N-LINKED (GLCNAC. . .) (POTENTIAL).
 FT CARBOHYD 132 132 N-LINKED (GLCNAC. . .) (POTENTIAL).
 FT CARBOHYD 307 307 N-LINKED (GLCNAC. . .) (POTENTIAL).
 FT CARBOHYD 346 346 N-LINKED (GLCNAC. . .) (POTENTIAL).
 FT CONFLICT 25 25 R -> H (IN REF. 2).
 FT CONFLICT 284 284 L -> F (IN REF. 3 AND 4).
 FT CONFLICT 287 287 F -> L (IN REF. 3).
 FT CONFLICT 398 398 H -> R (IN REF. 3 AND 4).
 FT CONFLICT 422 422 F -> L (IN REF. 2).
 FT CONFLICT 435 435 A -> V (IN REF. 3 AND 4).
 FT CONFLICT 438 438 F -> S (IN REF. 2).
 SQ SEQUENCE 476 AA; 54110 MW; 2D966683A4F3FD01 CRC64;

Query Match 98.9%; Score 2527; DB 1; Length 476;
 Best Local Similarity 98.7%; Pred. No. 2.9e-177;
 Matches 470; Conservative 0; Mismatches 6; Indels 0; Gaps 0;

QY 1 MVGAMWKVIVSLVLLMPGCDGLFHSLYRSVSNMPPKDSGQPLFTPTYEAGKIQKREL 60
 DB 1 MVGAMWKVIVSLVLLMPGCDGLFHSLYRSVSNMPPKDSGQPLFTPTYEAGKIQKREL 60

QY 61 SLVGGPPGLNMSYAGFLTNKYNLSNLFWFPEAQIQEDAPVVLWLOGGSGSMXGL 120
 DB 61 SLVGGPPGLNMSYAGFLTNKYNLSNLFWFPEAQIQEDAPVVLWLOGGSGSMXGL 120

QY 121 FVEHGPPVYVTSNMTLDRDPFPTTTXSMLYIDNPVGTGFSFTDDTHGYAVNDDVARDLY 180
 DB 121 FVEHGPPVYVTSNMTLDRDPFPTTTXSMLYIDNPVGTGFSFTDDTHGYAVNDDVARDLY 180

QY 181 SALIOFFQIFPEYKXNDFVVTGESVAGKYVPAIAHLIHSNLPVREKINLNGIAGDGY 240
 DB 181 SALIOFFQIFPEYKXNDFVVTGESVAGKYVPAIAHLIHSNLPVREKINLNGIAGDGY 240

RESULT 2

VCP_AEDAE STANDARD; PRT; 471 AA.
 ID VCP_AEDAE
 AC P42660;
 DT 01-NOV-1995 (Rel. 32, Created)
 DT 01-OCT-1996 (Rel. 34, Last sequence update)
 DT 28-FEB-2003 (Rel. 41, Last annotation update)
 DE Vitellogenic carboxypeptidase precursor (EC 3.4.16.-).
 GN VCP.
 OS Aedes aegypti (Yellowfever mosquito).
 OC Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
 OC Neoptera; Endopterygota; Diptera; Nematocera; Culicoidea; Aedes.
 OX NCBI_TaxID=7159;
 RN [1]
 RP SEQUENCE FROM N.A., AND SEQUENCE OF 20-36.
 RC TISSUE=fat body;
 RX MEDLINE=92073379; PubMed=1961751;
 RA Cho W.-L., Deitsch K.W., Raikhel A.S.;
 RT "An extraovarian protein accumulated in mosquito oocytes is a
 RT carboxypeptidase activated in embryos".
 RL Proc. Natl. Acad. Sci. U.S.A. 88:10821-10824(1991).
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE=97242559; PubMed=9087558;
 RA Deitsch K.W., Raikhel A.S.;
 RT "Cloning and analysis of the locus for mosquito vitellogenic
 RT carboxypeptidase".
 RL Insect Mol. Biol. 2:205-213(1993).
 CC -!- FUNCTION: MAY PLAY A ROLE IN ACTIVATING HYDROLYTIC ENZYMES THAT
 CC ARE INVOLVED IN THE DEGRADATION OF YOLK PROTEINS IN DEVELOPING
 CC EMBRYOS OR MAY FUNCTION AS AN EXOPEPTIDASE IN THE DEGRADATION OF
 CC VITELLOGENIN.
 CC -!- TISSUE SPECIFICITY: SYNTHESIZED IN THE FAT BODY OF VITELLOGENIC
 CC FEMALES, SECRETED INTO THE HEMOLYPH AND ACCUMULATES IN YOLK
 CC BODIES OF DEVELOPING OOCYTES.
 CC -!- DEVELOPMENTAL STAGE: MAXIMALLY PRESENT AT THE MIDDLE OF EMBRYONIC
 CC DEVELOPMENT AND DISAPPEARS BY THE END.
 CC -!- INDUCTION: BY 20-hydroxyecdysone.
 CC -!- PTM: ACTIVATION OF VCP IN EGGS IS ASSOCIATED WITH THE REDUCTION
 CC IN ITS SIZE FROM 53 kDa (INACTIVE FORM) TO 48 kDa (ACTIVE ENZYME).
 CC -!- SIMILARITY: BELONGS TO PEPTIDASE FAMILY S10.
 CC -!- CAUTION: REF.1 SEQUENCE DIFFERS FROM THAT SHOWN IN THE C-TERMINAL
 CC DUE TO A PUTATIVE FRAMESHIFT THAT MASKS THE LAST ACTIVE SITE
 CC RESIDUE.
 CC -----
 CC This SWISS-PROT entry is copyright. It is produced through a collaboration
 CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
 CC the European Bioinformatics Institute. There are no restrictions on its
 CC use by non-profit institutions as long as its content is in no way
 CC modified and this statement is not removed. Usage by and for commercial
 CC entities requires a license agreement (See <http://www.isb-sib.ch/announce/>
 CC or send an email to license@isb-sib.ch).
 CC -----

DR EMBL; M79452; AAA17682.1; -;
 DR EMBL; L46594; AAC41580.1; -;

DR PIR; A41612; A41612.
DR HSSP; P10619; 11VY.
DR MEROPS; S10.003; -.
DR InterPro; IPR000379; Ser. estrs. site.
DR InterPro; IPR001563; Serine carbpept.
DR Pfam; PF00450; serine carbpept; 1.
DR PRINTS; PR00724; CRBOXYPTASEC.
DR ProDom; PD001189; Serine carbpept; 1.
DR PROSITE; PS00131; CARBOXYPEPT_SER_SER; 1.
DR PROSITE; PS00560; CARBOXYPEPT_SER_HIS; 1.
KW Hydrolase; Carboxypeptidase; Glycoprotein; Hemolymph; Signal.
FT SIGNAL 1 19
FT CHAIN 20 471 VITELLOGENIC CARBOXYPEPTIDASE.
FT ACT SITE 207 207 BY SIMILARITY.
FT ACT SITE 391 391 BY SIMILARITY.
FT ACT SITE 448 448 BY SIMILARITY.
FT CARBOHYD 135 135 N-LINKED (GLCNAC. . .) (PROBABLE).
FT CONFLICT 37 37 P -> R (IN REF. 1).
FT CONFLICT 136 136 K -> N (IN REF. 1).
FT CONFLICT 284 285 NS -> KC (IN REF. 1).
FT CONFLICT 426 471 GSIAGYKGRAGLQELIRNAGHMVPRDQKWFADMTSFT
FT HKNYL -> RKSPGTRSLGVCKRC (IN REF. 1).
SQ SEQUENCE 471 AA; 53676 MW; FDI0DFC15B2A7CE CRC64;

Query Match 39.7%; Score 1014; DB 1; Length 471;
Best Local Similarity 43.9%; Pred. No. 9.9e-67;
Matches 197; Conservative 95; Mismatches 145; Indels 12; Gaps 7;

QY 24 FHSLYRSVSMPPK-GDSGQPLFTVIEAGKIQKRELSLVGPFCLANKSKVAGFLTVNK 82
DB 26 YKLMRGSAAPRPGSGSEFLTLPLQDKIEARKARVNHMLSSVESYSGFWTDA 85
QY 83 TYNLSMFLFFFAQIQPEDAPVVLWLGPGGSSMXGLFVERGYPVVTNNMLTRDRDFW 142
DB 86 KENSNLFFWYVAKNREQAIPILVWLGPGGASSLFGMEENGPHIHRKSVKQREYSW 145
QY 143 TTTXSMYLDINPVGTGFTDTHGVANVEDDVARLDYLSALIQFOIPEYKNNDFYVTG 202
DB 146 HQNHMIYIDNPVGTGFTDSDGYSTNEEHVGENLMKFIQQFVFLPNLLKHPFYISG 205
QY 203 ESYAGKYVPAIAHLHSLNPVREKINAGIAGDYSPESTIGYAEFLYQIGLLDEK 262
DB 206 ESYGKGFVPAFYAIH--NSQSPKINLQGLAIGDGYTDLNQL-NYGEYELGLIDLIN 262
QY 263 QKRYFOKQCEHIEHRKQWFAFEILDKLDGLDTSPPSQNTYNYFLRCTE 322
DB 263 GRKFDDETAALACAEKDMANFLIOGLFDG-LDQESYFKYGTGSSYNYFIKGD 321
QY 323 PEDQ-LYYVKFLSLPEVRAIHVGNQTFNDG---TIVEKYLREDTVQSVKPMLEIMNY 378
DB 322 ESKQSVLMFLSNPEVRKGIHVGLPFDHSDGHNKVAEMLSDETLDTVAPWVSKLLSHY 381
QY 379 KVLINYGOLDIIVAAALTEFLSMGMWDKSGQEKKAQKVKWIKFSDSEVAGVIRQVGF 438
DB 382 RVLFYNGOLDIICAYPMTVDFLKMFPDGDSEYKRRANREIYRV---DGEIAGYKGRAGL 438
QY 439 HOVIRGGHILPYDOPALRAFDMINRFY 467
DB 439 QEVLIENAGHMVPRDQKWFADMTSFT 467

RESULT 3

CBP3 ORYA
ID_CBP3 ORYA STANDARD; PRT; 500 AA.
AC P37891;
DT 01-OCT-1994 (Rel. 30, Created)
DT 01-OCT-1994 (Rel. 30, Last sequence update)
DT 28-FEB-2003 (Rel. 41, Last annotation update)
DE Serine carboxypeptidase III precursor (EC 3.4.16.5).
GN CBP3.
OS Oryza sativa (Rice).
OC Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;

OC Ehrhartoideae; Oryzeae; Oryza.
OX NCBI_TaxID=4530;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=cv. Yukihikari; TISUE=Seed;
RX MEDLINE=92327723; PubMed=1627776;
RT Washio K., Ishikawa K.;
RA "Structure and expression during the germination of rice seeds of the
RT gene for a carboxypeptidase";
RL Plant Mol. Biol. 19:631-640(1992).
CC -!- CATALYTIC ACTIVITY: Release of a C-terminal amino acid with a
CC broad specificity.
CC -!- SUBUNIT: Monomer (Probable).
CC -!- INDUCTION: BY GIBBERELIC ACID (GA). INHIBITED BY ABSICISIC ACID
CC (ABA).
CC -!- SIMILARITY: BELONGS TO PEPTIDASE FAMILY S10.
CC This SWISS-PROT entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use by non-profit institutions as long as its content is in no way
CC modified and this statement is not removed. Usage by and for commercial
CC entities requires a license agreement (See [http://www.isb-sib.ch/](http://www.isb-sib.ch/announce/)
CC or send an email to license@isb-sib.ch).
CC -----
DR EMBL; D10985; BAA01757.1; -.
DR PIR; S22530; S22530.
DR HSSP; P00729; 1YSC.
DR MEROPS; S10.009; -.
DR Gramene; P37891; -.
DR InterPro; IPR000379; Ser. estrs. site.
DR InterPro; IPR001563; Serine carbpept.
DR Pfam; PF00450; serine carbpept; 1.
DR PRINTS; PR00724; CRBOXYPTASEC.
DR ProDom; PD001189; Serine carbpept; 1.
DR PROSITE; PS00131; CARBOXYPEPT_SER_SER; 1.
DR PROSITE; PS00560; CARBOXYPEPT_SER_HIS; 1.
DR Hydrolase; Carboxypeptidase; Glycoprotein; Zymogen; Signal.
KW SIGNAL 1 21
FT PROPEP 22 73 BY SIMILARITY.
FT CHAIN 74 484 SERINE CARBOXYPEPTIDASE III.
FT PROPEP 485 500 BY SIMILARITY.
FT ACT_SITE 216 216 BY SIMILARITY.
FT ACT_SITE 404 404 BY SIMILARITY.
FT ACT_SITE 461 461 BY SIMILARITY.
FT BINDING 407 407 SUBSTRATE (BY SIMILARITY).
FT CARBOHYD 144 144 N-LINKED (GLCNAC. . .) (POTENTIAL).
SQ SEQUENCE 500 AA; 55446 MW; AE45SE2780147DB8 CRC64;

Query Match 22.9%; Score 585.5; DB 1; Length 500;
Best Local Similarity 29.6%; Pred. No. 2.2e-35;
Matches 149; Conservative 103; Mismatches 195; Indels 57; Gaps 15;

QY 1 MVGAMKVIIVSLVLMPCPC-DGL-----FHSLYRSVSMPPK-----GDSG 40
DB 1 MATARVSLILVWLAASACAEGLRPRDAPFAAQAERLIRSLNLLPKAGPTGAGD-- 58
QY 41 QPLFLTPYIEAGKIQKRELSLVGPFCL-NMKSYAGFLTVNKTYSNLFNFWFFPAQIQP 99
DB 59 -----VPSVAFGELE-RRVTLPGVGLGHGAGYRLPNTHDARMFVLFESRGK 112
QY 100 EDAPVVLWLGPGGSSMXGLFVEHGPVYVTSNMTLRDRDPFTWTTXSMYLDINPVGTGF 159
DB 113 ED-PVVIWLTGPGGSSSELAVFYENGPTTISNNMSLAWNKFGWDITISNIFVDQGTGTF 171
QY 160 SFTDTHGVANVEDDVARLDYLSALIQFOIPEYKNNDFYVTGSEYAGKYVPAIAHLHS 219
DB 172 SYSSDDRTRDTHGVANVEDDVARLDYLSALIQFOIPEYKNNDFYVTGSEYAGHYPAFASRVHQ 231
QY 220 LNPVRE-VKINLNGIAGDYSDPESIIGGYAEFLYQIGLLDEKQKVFQKQCEHIEBI 278
DB 232 GKNANEGIHNLKGAIFAGNGLTDPALQYKATDYALDNLNLLKSDYDRINKFIPPCFAI 291

QY 279 R-----KQWPEAFELDKLDGLTSDPSYFQNVGTGCSYNYFLRCTEPEDQLVY--- 329
 Db 292 KLCGTNGKASCAAYVNCNIF-----SIMKLVGTNYVDYVRK--ECEGKLCYDPS 341
 QY 330 --VKFSLPEVROAIHVGNQTF-NDGTIVEKYLRDVTQSVKPLWTEIM-NNYKVLIN 385
 Db 342 NLEKFFGDKAVKEAIGVGDLEFVSCSTTVQYAMLTDMMENLEVGIPALLEDGINVLIVAG 401
 QY 386 QLDIIVAAALTRSLMGMDKWSQOEYKAEKKVKWIFKSDSEVAGVIRQVGDHFOVIRG 445
 Db 402 EYDLICNLWLGNSRWVHSMWSGQKDFVSSHESP---FVVDGAEAGVLKSHGSLFLKVN 458
 QY 446 GGHILPYDQPLRAFDMINRFYIGK 469
 Db 459 AGHVMVMDQPKALEMLRFTQCK 482

RESULT 4

CBP3 HORVU STANDARD; PRT; 508 AA.
 AC P21529;
 DT 01-MAY-1991 (Rel. 18, Created)
 DT 15-JUL-1998 (Rel. 36, Last sequence update)
 DT 28-FEB-2003 (Rel. 41, Last annotation update)
 DE Serine carboxypeptidase III precursor (EC 3.4.16.5) (CP-MIII).
 GN CBP3 OR CXP;3.
 OS Hordeum vulgare (Barley).
 OC Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
 OC Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooideae;
 OC Triticeae; Hordeum.
 OX NCBI_TaxID=4513;
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN=cv. Himalaya; TISSUE=Aleurone;
 RA Rocher A.; Lok F.; Cameron-Willis V.; von Wettstein D.;
 RL Submitted (DEC-1996) to the EMBL/GenBank/DBJ databases.
 RN [2]
 RP SEQUENCE OF 81-491.
 RC STRAIN=cv. Gula;
 RX MEDLINE=90315015; PubMed=2639682;
 RA Soerensen S.B.; Svendsen I.; Breddam K.;
 RT "Primary structure of carboxypeptidase III from malted barley."
 RL Carlsberg Res. Commun. 54:193-202(1989).
 CC -! CATALYTIC ACTIVITY: Release of a C-terminal amino acid with a
 broad specificity.
 CC -! ENZYME REGULATION: INHIBITED BY MERCURIC IONS.
 CC -! SUBUNIT: Monomer.
 CC -! SUBCELLULAR LOCATION: SECRETED INTO THE ENDOSPERM.
 CC -! DEVELOPMENTAL STAGE: EXPRESSED MAINLY IN THE ALEURONE AND, TO A
 LESSER EXTENT IN THE EMBRYO, THROUGHOUT THE 5-DAYS GERMINATION
 PERIOD EXCLUSIVELY, WITH A MAXIMAL LEVEL AT 3 DAYS. ALSO FOUND IN
 THE ROOTS AND SHOOTS OF THE GROWING SEEDLING.
 CC -! SIMILARITY: BELONGS TO PEPTIDASE FAMILY S10.

 This SWISS-PROT entry is copyright. It is produced through a collaboration
 between the Swiss Institute of Bioinformatics and the EMBL outstation
 at the European Bioinformatics Institute. There are no restrictions on its
 use by non-profit institutions as long as its content is in no way
 modified and this statement is not removed. Usage by and for commercial
 entities requires a license agreement (See <http://www.isb-sib.ch/announce/>
 or send an email to license@isb-sib.ch).

EMBL; Y09604; CAA70817.1; -

DR HSP; P00729; 1CPV; -

DR MEROPS; S10.009; -

DR InterPro; IPR000379; Ser_estrs_site.

DR InterPro; IPR001563; Serine_carbpept.

DR Pfam; PF00450; serine_carbpept; 1.

DR PRINTS; PR00724; CRBOXPTASEC.

DR ProDom; PD001189; Serine_carbpept; 1.

DR PROSITE; PS00131; CARBOXYPEPT_SER_SER; 1.

DR PROSITE; PS00360; CARBOXYPEPT_SER_HIS; 1.

DR Hydrolase; Carboxypeptidase; Glycoprotein; Zymogen; Signal.

FT SIGNAL 1 19
 FT PROPEP 20 80
 FT CHAIN 81 491
 FT PROPEP 492 508
 FT MOD RES 81 81
 FT ACT SITE 223 223
 FT ACT SITE 411 411
 FT ACT SITE 468 468
 FT BINDING 414 414
 FT CARBOHYD 151 151
 FT VARIANT 265 265
 SQ SEQUENCE 508 AA; 56362 MW; 70C6751D78D40A56 CRC64;

Query Match 22.6%; Score 576; DB 1; Length 508;

Best Local Similarity 29.7%; Pred. No. 1.le-34;

Matches 150; Conservative 96; Mismatches 193; Indels 66; Gaps 15;

QY 9 IVSLVLLMP-----GFCGGLF-----HSLYRSVSMPPK---GDSGQPLFTPYIE 50
 Db 7 LVSLLLALCAAAGALRLPPDASFFGAQERLIRALNLLPKDSSSSGR-----H 58
 QY 51 AKTKQGRELSLVG-----PPGL-----NMKSAYAGFLTVNKTYSNLFWFPPAQIQ 98
 Db 59 GARYGEGNEDVAPQOLLERRVTLFGLPEGVADLGHAGYRLPNTHDARMEYFFESRGK 118
 QY 99 PEDAPVVLWLGQGGSGSMKGLFVEHGPVYVVTNMLRDRDFPWTXTXSMLYIDNPVGTG 158
 Db 119 KED-PVIVITLGGPCSSSELAFFVYENGFFTIANNMSLVNWKFGWDKISNIIFVDOPTGTG 177
 QY 159 FSFTDDTHGVAVNEDDVARDLYSALIQFOIFPEYKNNDFYVTGESYAGKYVPAIAHLIH 218
 Db 178 FSYSSDDRDTRHDETVGSNDLYDFLVFFKKHPFIKNDFFITGESYAGHYIPAFASRVH 237
 QY 219 SLNPVRE-VKINLNGIAGDGYSDPESLIGGYABFLYQIGLLDEKQKQKQKQKHECH 277
 Db 238 QGNKKNEGTHINLKGFAGNGLTDPALQYKAYTDYALEMNLIQADYERINKFIPPCEFA 297
 QY 278 IR-----KQWPEAFELDKLDGLTSDPSYFQNVGTGCSYNYFLRCTEPEDQLVY-- 329
 Db 298 IKLGTNGKASCAAYVNCNIFNS-----IMKLVGTNYVDYVRK--ECEGKLCYDF 347
 QY 330 ---VKFSLPEVROAIHVGNQTF-NDGTIVEKYLRDVTQSVKPLWTEIM-NNYKVLIN 384
 Db 348 SNLEKFFGDKAVRQAIGVGDIEFVSCSTSVYQAMLTDMERNLEVGIPALLEDGINVLIV 407
 QY 385 QLDIIVAAALTRSLMGMDKWSQOEYKAEKKVKWIFKSDSEVAGVIRQVGDHFOVIR 444
 Db 408 GEYDLICNLWLGNSRWVHSMWSGQKDFAKTAE---SSFLVDDAAGVLKSHGALSFLKVH 464
 QY 445 GGHILPYDQPLRAFDMINRFYIGK 469
 Db 465 NAGHVMVMDQPKALEMLRFTQCK 489

RESULT 5

CBPX ARATH

ID CBPX ARATH STANDARD; PRT; 516 AA.

AC P32826; Q42107; Q9CAE5.

DT 01-OCT-1993 (Rel. 27, Created)

DT 28-FEB-2003 (Rel. 41, Last sequence update)

DT 28-FEB-2003 (Rel. 41, Last annotation update)

DE Serine carboxypeptidase precursor (EC 3.4.16.-).

GN AT3G10410 OR F13M14.32.

OS Arabidopsis thaliana (Mouse-ear cress).

OC Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;

OC Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; Rosidae;

OC Eucosids II; Brassicales; Brassicaceae; Arabidopsids.

OX NCBI_TaxID=3702;

RN [1]

RP SEQUENCE FROM N.A.

RA Bradley D.;

RL Submitted (XXX-1992) to the EMBL/GenBank/DBJ databases.

RN [2]

GenCore version 5.1.6
Copyright (c) 1993 - 2003 Compugen Ltd.

OM protein - protein search, using sw model

Run on: November 7, 2003, 16:41:03 ; Search time 42 Seconds
(without alignments)

2924.596 Million cell updates/sec

Title: US-10-084-018-3

Perfect score: 2554

Sequence: 1 MYGAMWKVTVSLVLLMPGPC.....RAPDMINRFYKGMWPYVG 476

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 830525 seqs, 258052604 residues

Total number of hits satisfying chosen parameters: 830525

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

SPTREMBL_23.*

1: sp_archaea.*

2: sp_bacteria.*

3: sp_fungi.*

4: sp_human.*

5: sp_invertebrate.*

6: sp_mammal.*

7: sp_mhc.*

8: sp_organelle.*

9: sp_phase.*

10: sp_plant.*

11: sp_rodent.*

12: sp_virus.*

13: sp_vertebrate.*

14: sp_unclassified.*

15: sp_rvirus.*

16: sp_bacteriaph.*

17: sp_archaeap.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	1804	70.6	434	11	Q9D3S9 mus musculus
2	1580	61.9	295	4	Q75225 homo sapien
3	1214	47.5	233	4	Q9N290 homo sapien
4	960.5	37.6	482	5	Q9VPT5 drosophila
5	839.5	32.9	434	5	Q81161 drosophila
6	623.5	24.4	444	10	Q9M9Q6 arabidopsis
7	582.5	22.8	508	10	Q8L6A7 theobroma c
8	581	22.7	505	10	Q9FB0 arabidopsis
9	577.5	22.6	507	10	Q8VWQ0 goessypium h
10	571.5	22.4	510	10	Q9LXH4 arabidopsis
11	567.5	22.2	501	10	Q9XH61 matricaria
12	564.5	22.1	510	10	Q932C3 arabidopsis
13	561	22.0	429	10	Q9LHX5 oryza sativ
14	556	21.8	429	10	Q8GVT1 oryza sativ
15	556	21.8	548	4	Q9BR08 homo sapien
16	533.5	20.9	474	11	Q9D2D1 mus musculus

17	503	19.7	2105	5	Q17679
18	500	19.6	497	10	Q8L7B2 arabidopsis
19	491	19.2	499	10	Q9FMX9 arabidopsis
20	484	19.0	482	10	Q9SV04 arabidopsis
21	473.5	18.5	494	10	Q9FEU4 pisum sativ
22	473	18.5	504	10	Q9LSV8 arabidopsis
23	470.5	18.4	452	10	Q9FPB7 oryza sativ
24	466.5	18.3	456	10	Q9SV78 arabidopsis
25	466.5	18.3	501	10	Q9SV02 arabidopsis
26	465.5	18.2	552	3	Q96VC4 emericella
27	463.5	18.1	2338	5	Q94269 caenorhabdi
28	462.5	18.1	479	10	Q949Q7 arabidopsis
29	460.5	18.0	437	10	Q9FWG1 oryza sativ
30	460.5	18.0	482	10	Q9FRJ0 oryza sativ
31	460	18.0	502	10	Q9LY68 arabidopsis
32	455.5	17.8	459	10	Q8RZS0 oryza sativ
33	454.5	17.8	472	10	Q9LSM9 arabidopsis
34	454.5	17.8	524	10	Q8GTK2 oryza sativ
35	454	17.8	479	10	Q9MAR8 arabidopsis
36	451	17.7	465	10	Q04084 arabidopsis
37	439	17.2	498	10	Q9M513 lycopersico
38	435	17.0	490	10	Q9FYP7 oryza sativ
39	434.5	17.0	456	10	Q9C7B2 arabidopsis
40	432	16.9	425	10	Q82229 arabidopsis
41	432	16.9	461	10	Q93Y09 arabidopsis
42	431.5	16.9	458	10	Q22803 arabidopsis
43	431	16.9	469	10	Q9FH06 arabidopsis
44	430	16.8	459	10	Q9SPB5 arabidopsis
45	429	16.8	452	10	Q9ZQ00 arabidopsis

ALIGNMENTS

RESULT 1

Q9D3S9	PRELIMINARY;	PRT;	434 AA.
ID	Q9D3S9		
AC	Q9D3S9;		
DT	01-JUN-2001 (Tremblrel. 17, Created)		
DT	01-JUN-2001 (Tremblrel. 17, Last sequence update)		
DT	01-MAR-2003 (Tremblrel. 23, Last annotation update)		
DE	4933436L16Rik protein.		
GN	4933436L16Rik.		
OS	Mus musculus (Mouse).		
OC	Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;		
OC	Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.		
OX	NCBI_TaxID=10090;		
RN	[1]_TaxID=10090;		
RP	SEQUENCE FROM N.A.		
RC	STRAIN=C57BL/6J; TISSUE=Testis;		
RX	MEDLINE=21085660; PubMed=11217851;		
RA	Kawai J., Shinagawa A., Shibata K., Yoshino M., Itoh M., Ishii Y.,		
RA	Arakawa T., Hara A., Fukunishi Y., Konno H., Adachi J., Fukuda S.,		
RA	Rizawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,		
RA	Saito T., Okazaki Y., Gojohori T., Bono H., Kasukawa T., Saito R.,		
RA	Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,		
RA	Fleischmann W., Gaasterland T., Gissi C., King B., Kochiwa H.,		
RA	Kuehl P., Lewis S., Matsuo Y., Nikaide I., Pesole G., Quackenbush J.,		
RA	Schriml L.M., Staubli F., Suzuki R., Tomita M., Wagner L., Washio T.,		
RA	Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,		
RA	Blake J., Boffelli D., Bojunga N., Carninci P., de Bonaldo M.F.,		
RA	Brownstein M.J., Bult C., Fletcher C., Fujita M., Gariboldi M.,		
RA	Gustincich S., Hill D., Hofmann M., Hume D.A., Kamiya M., Lee N.H.,		
RA	Lyons P., Marchionni L., Mashima J., Mazzarelli J., Mombaerts P.,		
RA	Nordone P., Ring B., Ringwald M., Rodriguez I., Sakamoto N.,		
RA	Sasaki H., Sato K., Schoenbach C., Seya T., Shibata Y., Storch K.-F.,		
RA	Suzuki H., Toyooka K., Wang K.H., Weitz C., Whittaker C., Wilming L.,		
RA	Wynshaw-Boris A., Yoshida K., Hasegawa Y., Kawai H., Kotsuki S.,		
RA	Hayashizaki Y.;		
RT	"Functional annotation of a full-length mouse cDNA collection.";		
RL	Nature 409:685-690(2001).		
DR	EMBL; AK017087; BAB30589.1; --		
DR	HSSP; P08819; 1WHT.		


```

QY 117 MXGLFVEHGFYVVTSMNLTDRDPFWTTXSMYIDNPVGTGFSFTDDTHGVAVNEDDVA 176
Db 1 MEGFLFVEHGFYVVTSMNLTDRDPFWTTTSLMYIDNPVGTGFSFTDDTHGVAVNEDDVA 60
QY 177 RLYSALIOFFQIFPPYKNDPVTGSEYAGKYVPAIAHLIHSNPNRVKINLNGIAIG 236
Db 61 RLYSALIOFFQIFPPYKNDPVTGSEYAGKYVPAIAHLIHSNPNRVKINLNGIAIG 120
QY 237 DGVSDPESIIIGGVAEFLYQIGLLDEKQKYFKQCHCEHIEHTRKQNWFAFEILDKLLDG 296
Db 121 DGVSDPESIIIGGVAEFLYQIGLLDEKQKYFKQCHCEHIEHTRKQNWFAFEILDKLLDG 180
QY 297 DLTSDPSYFQNVTCGSNYNFRCTEPEDQLYVYKFLSLPEVRQAIHVGNQTF 349
Db 181 DLTSDPSYFQNVTCGSNYNFRCTEPEDQLYVYKFLSLPEVRQAIHVGNQTF 233

RESULT 4
Q9VDT5
ID Q9VDT5 PRELIMINARY; PRT; 482 AA.
AC Q9VDT5;
DT 01-WAY-2000 (TrEMBLrel. 13, Created)
DT 01-WAY-2000 (TrEMBLrel. 13, Last sequence update)
DE 01-JUN-2002 (TrEMBLrel. 21, Last annotation update)
DE CG4572 protein (L047549P).
GN CG4572.
OS Drosophila melanogaster (Fruit fly).
OC Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha;
OC Ephydroidea; Drosophilidae; Drosophila.
OX NCBI_TaxID=7227;
RN (1)
RP SEQUENCE FROM N.A.
RC STRAIN=BERKELEY.
RX MEDLINE=20196006; PubMed=10731132;
RA Adams M.D., Celniker S.E., Holt R.A., Evans C.A., Gocayne J.D.,
RA Amanatides P.G., Scherer S.E., Li P.W., Hoskins R.A., Galie R.F.,
RA George R.A., Lewis S.B., Richards S., Ashburner M., Henderson S.N.,
RA Sutton G.G., Wortman J.R., Yandell M.D., Zhang Q., Chen L.X.,
RA Brandon R.C., Rogers Y.-H.C., Blazej R.G., Champe M., Pfeiffer B.D.,
RA Wan K.H., Doyle C., Baxter E.G., Helt G., Nelson C.R., Miklos G.L.G.,
RA Abril J.F., Agayani A., An H.-J., Andrews-Frankoch C., Baldwin D.,
RA Ballew R.M., Basu A., Baxendale J., Bayraktaroglu L., Beasley E.M.,
RA Beeson K.Y., Benos P.V., Beriman B.P., Bhandari D., Bolshakov S.,
RA Borkova D., Botchan M.R., Bouck J., Brokstein P., Brottier P.,
RA Burtis K.C., Busan D.A., Butler H., Cadieu E., Center A., Chandra I.,
RA Cherry J.M., Cawley S., Dahake C., Davenport L.B., Davies P.,
RA de Pablo B., Delcher A., Deng Z., Mays A.D., Dew I., Dietz S.M.,
RA Dodson K., Doup L.E., Downes M., Dugan-Rocha S., Dunkov B.C., Dunn P.,
RA Durbin K.J., Evangelista C.C., Ferraz C., Ferreira S., Fleischmann W.,
RA Fosler C., Gabriellian A.E., Garg N.S., Gelbart W.M., Glasner K.,
RA Glodek A., Gong F., Gorrell J.H., Gu Z., Guan P., Harris M.,
RA Harris N.L., Harvey D., Heiman T.J., Hernandez J.R., Houck J.,
RA Hostin D., Houston K.A., Howland T.J., Wei M.-H., Ibegwam C.,
RA Jalali M., Kalush F., Karpen G.H., Ke Z., Kennison J.A., Ketchum K.A.,
RA Kimmel B.E., Kodira C.D., Kraft C., Kravitz S., Kulp D., Lai Z.,
RA Lasko P., Lei Y., Levitsky A.C., Li J., Li Z., Liang Y., Lin X.,
RA Liu X., Mattei B., McIntosh T.C., McLeod M.P., McPherson D.,
RA Merkulov G., Milshina N.V., Mobarry C., Morris J., Moshrefi A.,
RA Mount S.M., Moy M., Murphy B., Murphy L., Muzny D.M., Nelson D.L.,
RA Nelson D.R., Nelson K.A., Nixon K., Nusskern D.R., Pacleb J.M.,
RA Palazzolo M., Pittman G.S., Pan S., Pollard J., Puri V., Reese M.G.,
RA Reinert K., Renington K., Saunders R.D.C., Scheeler F., Shen H.,
RA Shue B.C., Siden-Kiamos I., Simpson M., Skupski M.P., Smith T.,
RA Spier E., Spradling A.C., Stapleton M., Strong R., Sun E.,
RA Svrtkav R., Tector C., Turner R., Venter E., Wang A.H., Wang X.,
RA Wang Z.-Y., Wassman D.A., Weinstein G.M., Weissbach J.,
RA Williams S.M., Woodage T., Worley K.C., Wu D., Yang S., Yao Q.A.,
RA Ye J., Yeh R.-F., Zaveri J.S., Zhan M., Zhang G., Zhao Q., Zheng L.,
RA Zheng X.H., Zhong F.W., Zhong W., Zhou X., Zhu S., Zhu X., Smith H.O.,
RA Gibbs R.A., Myers E.N., Rubin G.M., Venter J.C.;
RT "The genome sequence of Drosophila melanogaster."
RL Science 287:2185-2195(2000).

```

```

RN (2)
RP SEQUENCE FROM N.A.
RC STRAIN=Berkeley.
RA Stapleton M., Brokstein P., Hong L., Agbayani A., Carlson J.,
RA Champe M., Chavez C., Dorsett V., Farfan D., Frise E., George R.,
RA Gonzalez M., Guarin H., Li P., Liao G., Miranda A., Mungall C.J.,
RA Nunco J., Pacleb J., Paragas V., Park S., Phouanavong S., Wan K.,
RA Yu C., Lewis S.E., Rubin G.M., Celniker S.
RL Submitted (AUG-2001) to the EMBL/GenBank/DBJ databases.
DR EMBL; AE003728; AAF55705.1; --
DR EMBL; AY052032; AAK33446.1; --
DR HSP; F10619; livi.
DR MEROPS; S10.003; --
DR FlyBase; FBgn0038738; CG4572.
DR InterPro; IPR001563; Serine carboxypeptidase.
DR InterPro; IPR000379; Ser esterase site.
DR Pfam; PF00450; serine carboxypeptidase; 1.
DR PRINTS; PR00724; CRBOXPTASEC.
DR PRODOM; PD001189; Serine carboxypeptidase; 1.
DR PROSITE; PS00560; CARBOXYPEPTIDASE_HIS; 1.
DR PROSITE; PS00131; CARBOXYPEPTIDASE_SER; 1.
DR PROSITE; PS00131; CARBOXYPEPTIDASE_SER; 1.
SQ SEQUENCE 482 AA; 54385 MW; 59E4B1A0E7B1C2B3 CRC64;

Query Match 37.6%; Score 960.5; DB 5; Length 482;
Best Local Similarity 44.4%; Pred. No. 5.3e-67;
Matches 196; Conservative 91; Mismatches 137; Indels 17; Gaps 8;

QY 38 DSGQPLFLTPYIEAGKIQKGRSLV---GPFPLNKMKSAGELTVNKTNSNLPFWFF 93
Db 49 DPGEPLFLTPYIEAGKIQKGRSLV---GPFPLNKMKSAGELTVNKTNSNLPFWFF 106
QY 94 PAQIQPEDAPVVLMLQGGPGSSMKGLFVEHGFYVVTSMNLTDRDPFWTTXSMYIDN 153
Db 107 PAEQEPYAPVVLMLQGGPGSSMKGLFVEHGFYVVTSMNLTDRDPFWTTXSMYIDN 166
QY 154 PVGTGFTDTHGVAVNEDDVARLDYSALIQFOIPEYKNDPVTGSEYAGKYVPAI 213
Db 167 PVGTGFTDTHGVAVNEDDVARLDYSALIQFOIPEYKNDPVTGSEYAGKYVPAI 226
QY 214 AHLIHSNPNRVKINLNGIAIGDGYSDPESIIIGGVAEFLYQIGLLDEKQKYFKQ 271
Db 227 AVHIHKVQNAETRYVPEKGVANGUSDLPHQL-KYGDVLYQLGLIDEHGLQSFHDAE 285
QY 272 HECIEHTRKQNWFAFEILDKLLDGDLTSDPSYFQNVTCGSNYNFRCTEPEDQLYVYK 331
Db 286 AKGAECIKSHDMECAFVDSLSINGDLNG-SLFSNLGTGYNNYLYK-THDDDCGANLGE 343
QY 332 FLSLPEVRQAIHVGNQTFND---GTIVKYLREDTVQSVKPLWTEIMNNYKVLINGOLD 388
Db 344 FLQAGATRAIHVGNKTFHDLDKENKVELHLKKOIMDSVAPWIAELLARHTVCYISGQJD 403
QY 389 IVVAAALTSRISLMGMDKWSQYKAEKWKPKFSDSEVAGYIRQVGFHGVIIIRGGH 448
Db 404 IVVAPLFRNVLNQDKFSGDKYVAPREVVRVGK---EVAGYVKGHGLHVEIMVRNAGH 460
QY 449 ILPYDQPLRAFDPMINRFTYK 469
Db 461 MAPHDQPKWLYNMIDHLTHYK 481

RESULT 5
Q8I161
ID Q8I161 PRELIMINARY; PRT; 434 AA.
AC Q8I161;
DT 01-MAR-2003 (TrEMBLrel. 23, Created)
DT 01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
DE 01-MAR-2003 (TrEMBLrel. 23, Last annotation update)
DE CG4572-PA (Fragment).
GN CG4572.
OS Drosophila pseudoobscura (Fruit fly).
OC Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha;
OC Ephydroidea; Drosophilidae; Drosophila.

```

